74356

RICHARD A. DEISS & ASSOC. .TES
Consulting Engineers
R. D. 1, Alden Street Ext.
Meadville, Pa. 16335

August 20, 1979

Mr. David Milhous, P. E.
Chief Facilities Section
Pennsylvania Department of Environmental Resources
1012 Water Street
Meadville, Pennsylvania 16335

Re: Industrial Waste Permit Appl.
Part II
Spectrum Control Inc.
Saegertown Borough, Crawford Co.

Dear Mr. Milhous:

Attached is the Part II application for Spectrum Control Inc., Saegertown Borough, Crawford County. The application consists of the following:

A $25 filing fee check
Industrial Wastes Module with topographic section, Engineering Narrative, Erosion Control Plan notation, and Pollution Incident Prevention Plan (2 copies)
Flow and equipment schematic plan (2 copies)

Please note that the Part I application was in process for a considerable time and that the scheduled implementation of the project is way behind schedule. Any assistance you can provide in expediting this application will be appreciated. I will be available to answer any questions you may have or to meet and discuss the treatment system design with you.

Very truly yours,

Richard A. Deiss, P. E.

RAD/ced

Attachments

cc: Jack Baker

AR200841

EXHIBIT D

ER-BW-51.2

DATE PREPARED 8-4-77

DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION INDUSTRIAL WASTES

For Department Use Only

APPLICANT SPECTRUM CONTROL, INC.

LOCATION OF PROJECT: MUNICIPALITY SAEGERTOWN BOROUGH COUNTY CRAWFORD

DESIGN ENGINEER AND FIRM RICHARD A. DEISS, P.E., RICHARD A. DEISS & ASSOCIATES

DESIGN ENGINEER'S ADDRESS RD 1, ALDEN ST. EXT. MEADVILLE, PA. ZIP 16335 TELEPHONE (814) 336-1821

DESCRIPTION OF PROJECT CONSTRUCTION OF A TREATMENT SYSTEM TO TREAT CYANIDE AND HEAVY METAL PLATING WASTES.

FACILITIES DESCRIBED HEREIN ☐ ARE EXISTING ☑ WILL BE COMPLETED ON (DATE) SEPT. 1, 1978

A. DOCUMENTATION REQUIRED

1. HAS A CHECK FOR $25.00, PAYABLE TO THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, BEEN INCLUDED? (NOT REQUIRED OF STATE OR FEDERAL AGENCIES) ☑ Yes ☐ No ☐ N/A

2. HAVE 2 COPIES OF THE APPLICATION, ER-BWQ-51, BEEN SUBMITTED? (THREE (3) COPIES REQUIRED FOR PROJECTS IN THE DELAWARE RIVER BASIN) ☑ Yes ☐ No

   A. HAS THE AFFIDAVIT BEEN PROPERLY COMPLETED AND EXECUTED? ☑ Yes ☐ No

   B. HAS PROOF OF PUBLICATION BEEN SUBMITTED? (REQUIRED IN ALL CASES WHERE THERE IS A DISCHARGE TO WATERS OF THE COMMONWEALTH) ☑ Yes ☐ No

3. HAS A POLLUTION INCIDENT PREVENTION REPORT BEEN INCLUDED? ☑ Yes ☐ No

4. DOES THE APPLICATION INCLUDE THE FOLLOWING APPLICABLE MODULES:

MODULE NUMBER	TITLE	NUMBER OF PAGES		
2	GENERAL INFORMATION – INDUSTRIAL WASTES	9	☑ Yes	☐ N/A
4	WASTE LOAD AND CHARACTERISTICS	3	☑ Yes	☐ N/A
5	GEOLOGY AND GROUND WATER INFORMATION	2	☐ Yes	☐ N/A
8	PUMPING FACILITIES	1	☑ Yes	☐ N/A
9	FLOW EQUALIZATION AND STORAGE BASINS	1	☑ Yes	☐ N/A
10	GRIT CHAMBERS	1	☐ Yes	☐ N/A
11	SCREENING AND COMMINUTING DEVICES	2	☐ Yes	☐ N/A
12	IMHOFF AND SEPTIC TANKS	2	☐ Yes	☐ N/A
13	SETTLING TANKS, CLARIFIERS AND THICKENERS	2	☐ Yes	☐ N/A
14	EARTHEN SETTLING BASINS	2	☐ Yes	☐ N/A

AR200842

DATE PREPARED 8-4-77

DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPART T OF ENVIRONMENTAL RESOURCES
.ER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION
INDUSTRIAL WASTES

For Department Use Only

A. DOCUMENTATION REQUIRED – CONTINUED

MODULE NUMBER	TITLE	NUMBER OF PAGES		
15	TRICKLING FILTERS	1	☐ Yes	☐ N/A
16	AERATION TANKS OR BASINS	2	☐ Yes	☐ N/A
17	WASTE STABILIZATION PONDS	3	☐ Yes	☐ N/A
18	CHEMICAL TREATMENT (INCLUDING FEEDERS)	2	☑ Yes	☐ N/A
19	MIXING AND FLOCCULATION FACILITIES	1	☑ Yes	☐ N/A
20	SAND FILTERS	1	☐ Yes	☐ N/A
21	DISINFECTION	2	☐ Yes	☐ N/A
22	SPRAY IRRIGATION	3	☐ Yes	☐ N/A
23	PHYSICAL ABSORPTION, ION EXCHANGE, AND CONTACT UNITS	2	☐ Yes	☐ N/A
24	FLOTATION AND OIL SEPARATION	2	☐ Yes	☐ N/A
25	DEEP WELL DISPOSAL	4	☐ Yes	☐ N/A
26	SLUDGE TREATMENT AND DISPOSAL			
	A. SEPARATE DIGESTION TANKS AND SLUDGE THICKENING TANKS	1	☐ Yes	☐ N/A
	C. WET OXIDATION	1	☐ Yes	☐ N/A
	D. SLUDGE DRYING BEDS	1	☐ Yes	☐ N/A
	E. LAND DISPOSAL OF SLUDGE	1	☐ Yes	☐ N/A
	F. SLUDGE BASINS	1	☐ Yes	☐ N/A
	G. FILTERS AND CENTRIFUGES	1	☑ Yes	☐ N/A
	H. INCINERATION	1	☐ Yes	☐ N/A
	I. DEEP MINE DISPOSAL	2	☐ Yes	☐ N/A
27	HEATED WASTES	2	☑ Yes	☐ N/A

AR200843

ER-BWQ-51.2

DATE PREPARED 8-4-77

DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION
INDUSTRIAL WASTES

For Department Use Only

B. REQUIRED DATA

1. THE FRONT COVER OR FLYLEAF OF EACH SET OF DRAWINGS AND SPECIFICATIONS MUST BEAR THE SIGNATURE AND SEAL OF THE REGISTERED PROFESSIONAL ENGINEER OR SURVEYOR BY OR UNDER WHOM PREPARED. EACH DRAWING MUST BEAR AN IMPRINT OR REASONABLE FACSIMILE OF SUCH SEAL.

2. SUPPORTING INFORMATION:

A. 2 COPIES OF DESIGNER'S PLANS, MODULES, AND SPECIFICATIONS (3 COPIES REQUIRED FOR PROJECTS IN DELAWARE RIVER BASIN) ☑ Yes

B. SCHEMATIC FLOW DIAGRAM OF WASTE TREATMENT PLANT SHOWING ALL UNITS DESCRIBED IN MODULES' (ON APPROX' 8½ x 11" PAPER, ACCOMPANYING MODULES) ☑ Yes

C. UNITED STATES GEOLOGICAL SURVEY TOPOGRAPHIC MAP SHOWING EXACT POINT OF DISCHARGE AND TREATMENT PLANT LOCATION ☑ Yes

D. HAVE YOU APPLIED FOR APPROVAL OF STREAM ENCROACHMENTS? ☐ Yes ☐ No ☑ N/A

E. HAVE YOU APPLIED FOR APPROVAL OF AIR POLLUTION CONTROL FACILITIES? ☐ Yes ☐ No ☑ N/A

F. HAVE YOU SUBMITTED A LIST OF NAMES, TITLES, AND ADDRESSES OF ALL PARTNERS IN THE CASE OF A PARTNERSHIP OR ALL OFFICERS IN THE CASE OF A CORPORATION, UNINCORPORATED ASSOCIATION, INCORPORATED ASSOCIATION, PARTNERSHIP, OR OTHER ENTITY? ☑ Yes ☐ No ☐ N/A

3. SPECIFY THE FOLLOWING:

PLANS: SPECTRUM CONTROL, INC. (Title/Description) NO. OF SHEETS 1 DATE 8/20/79

PLANS: _____ (Title/Description) NO. OF SHEETS _____ DATE _____

PLANS: _____ (Title/Description) NO. OF SHEETS _____ DATE _____

PLANS: _____ (Title/Description) NO. OF SHEETS _____ DATE _____

B. SPECIFICATIONS (IF APPLICABLE): N/A (Title)

NUMBER OF VOLUMES _____ DATE _____

C. OTHER (SPECIFY TYPE AND NUMBER):

AR200844

ER-BWQ-51.2

DATE PREPARED 8-4-77
DATE REVISED 1-5-79

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION
INDUSTRIAL WASTES

For Department Use Only

B. REQUIRED DATA – CONTINUED

4. ARE THE PLANS:

A. CLEAR, LEGIBLE, AND DRAWN TO SCALE? ☑ Yes ☐ No

B. WITHIN MAXIMUM SIZE OF 36 INCHES BY 50 INCHES? ☑ Yes ☐ No

C. CLASS OF CONSTRUCTION

1. TYPE:
- ☑ NEW
- ☐ REPLACEMENT OF EXISTING FACILITY
- ☐ ADDITION AND/OR MODIFICATION TO EXISTING FACILITY
- ☐ NO NEW CONSTRUCTION–APPROVAL REQUESTED OF EXISTING FACILITY

D. PLANT STATUS

1. IS THE INDUSTRIAL ESTABLISHMENT: ☐ PROPOSED? ☑ EXISTING? NAME, IF ANY, OF THIS PLANT: MATERIAL SCIENCES DIVISION

2. TYPE OF INDUSTRIAL ESTABLISHMENT (USE STANDARD CODE OF UNITED STATES OFFICE OF STATISTICAL STANDARDS):

CODE 3679 DESCRIPTION ELECTRONIC COMPONENTS

A. TYPE OF PRODUCT: TERMINALS & SHELLS; CERAMIC CAPACITORS

B. DAILY PRODUCTION: 60,000. ; 30,000. ;

C. DAYS PER YEAR OF PRODUCTION: 250 ; 250 ;

D. WORKING DAY: 7:30 AM TO 12:30 AM ~~PM~~ MAIN SHIFTS 5 DAYS PER WEEK

E. NUMBER OF EMPLOYEES 53

3. TYPE OF OWNERSHIP: ☐ INDIVIDUAL ☒ CORPORATION ☐ PARTNERSHIP ☐ OTHER (SPECIFY)

4. HAS THIS APPLICATION BEEN FILED AS THE RESULT OF A VIOLATION NOTICE, DEPARTMENT ORDER, OR LEGAL STIPULATION? ☐ Yes ☒ No

5. THE DATE OF THE VIOLATION NOTICE, ORDER OR STIPULATION IS _____ ☑ N/A

6. LIST BY NUMBER AND DATE ANY PREVIOUSLY ISSUED PERMITS RELEVANT TO THIS INDUSTRIAL ESTABLISHMENT:

AR200845

ER-BWQ-51.2

DATE PREPARED 8-4-77

DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION
INDUSTRIAL WASTES

For Department Use Only

E. WASTE TREATMENT

1. WHAT SPECIFIC PROCESS OR PROCESSES GENERATE OR WILL GENERATE THE WASTE? PLATING RINSES & SPENT SOLUTIONS.

2. ARE INDUSTRIAL WASTES NOW BEING PRODUCED BY THE INDUSTRIAL ESTABLISHMENT? ☑ Yes ☐ No

A. IF YES, ARE THE INDUSTRIAL WASTES:

1) ☐ DISCHARGED WITHOUT TREATMENT?
2) ☑ TREATED AND DISCHARGED WITHOUT PERMIT?
3) ☐ TREATED AND DISCHARGED UNDER WATER QUALITY MANAGEMENT PERMIT?
4) ☑ DISCHARGED TO MUNICIPAL SEWERAGE SYSTEM?
   ☐ SANITARY OR COMBINED SEWERS ☑ STORM SEWERS
   NAME OF SYSTEM SAEGERTOWN STORM SEWERS (BOROUGH)
5) ☐ OTHER (DESCRIBE) _____

B. IF 3) or 4), ABOVE, WHY IS THE CURRENT APPLICATION BEING MADE? PERMIT IS REQUIRED.

C. IF THE INDUSTRIAL WASTES ARE BEING TREATED IN AN EXISTING INDUSTRIAL WASTE TREATMENT PLANT, BRIEFLY DESCRIBE THE TREATMENT PROVIDED:
BATCH TREATMENT & NEUTRALIZATION

3. WHAT IS THE METHOD OF DISPOSAL OF SANITARY SEWAGE?

☐ PUBLIC SEWERAGE SYSTEM
☐ PRIVATE SEWAGE TREATMENT PLANT
   OWNERSHIP _____
   LOCATION _____
☑ ON LOT SEPTIC TANK TILE FIELD SYSTEM
☐ OTHER (DESCRIBE) _____

AR200846

SR-BWQ-51.2

DATE PREPARED 8-4-77

DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPART NT OF ENVIRONMENTAL RESOURCES
TER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION INDUSTRIAL WASTES

For Department Use Only

E. WASTE TREATMENT – CONTINUED

4. OPERATIONAL FEATURES

NOTE: IN ANSWERING THE FOLLOWING QUESTIONS, INFORMATION PROVIDED MUST APPLY TO ALL UNITS OF TREATMENT PLANT.

A. WILL STANDBY EQUIPMENT BE PROVIDED FOR ALL MECHANICAL UNITS IN THE TREATMENT PLANT? ☐ Yes ☑ No

1.) IF NO, WILL SPARE PARTS BE STOCKED AT THE TREATMENT PLANT FOR ALL CRITICAL MECHANICAL UNITS? ☑ Yes ☐ No

2.) IF NO, ARE PARTS READILY AVAILABLE FROM LOCAL SUPPLIERS FOR REPAIRING MECHANICAL BREAKDOWNS? ☑ Yes ☐ No

B. WILL PROCESS PRODUCING WASTES BE DISCONTINUED DURING PERIODS OF EQUIPMENT FAILURE? ☑ Yes ☐ No

1.) IF NO, DESCRIBE ANTICIPATED REDUCTION IN TREATMENT EFFICIENCY DURING EQUIPMENT FAILURE.

F. RECEIVING STREAM *

1. WHAT IS THE NAME OF THE RECEIVING STREAM? STORM SEWER TRIBUTARY TO FRENCH CREEK

(IF NO DISCHARGE TO STREAM, CHECK HERE ☐ AND NAME THE STREAM WHICH DRAINS THE AREA)

A. TRIBUTARY OF: ALLEGHENY RIVER

B. TRIBUTARY OF:

C. MAJOR DRAINAGE BASIN:

☐ DELAWARE ☐ POTOMAC ☑ ALLEGHENY
☐ SUSQUEHANNA ☐ LAKE ERIE ☐ MONONGAHELA
☐ GENESEE ☐ OHIO

2. DESCRIBE THE EXACT POINT(S) OF DISCHARGE:

41 DEG, 42 MIN, 45 SEC. LATITUDE

80 DEG, 08 MIN, 46 SEC. LONGITUDE

A. WATERSHED AREA ABOVE POINT OF DISCHARGE IS

629 – SQUARE MILES.

3. WHAT IS THE:

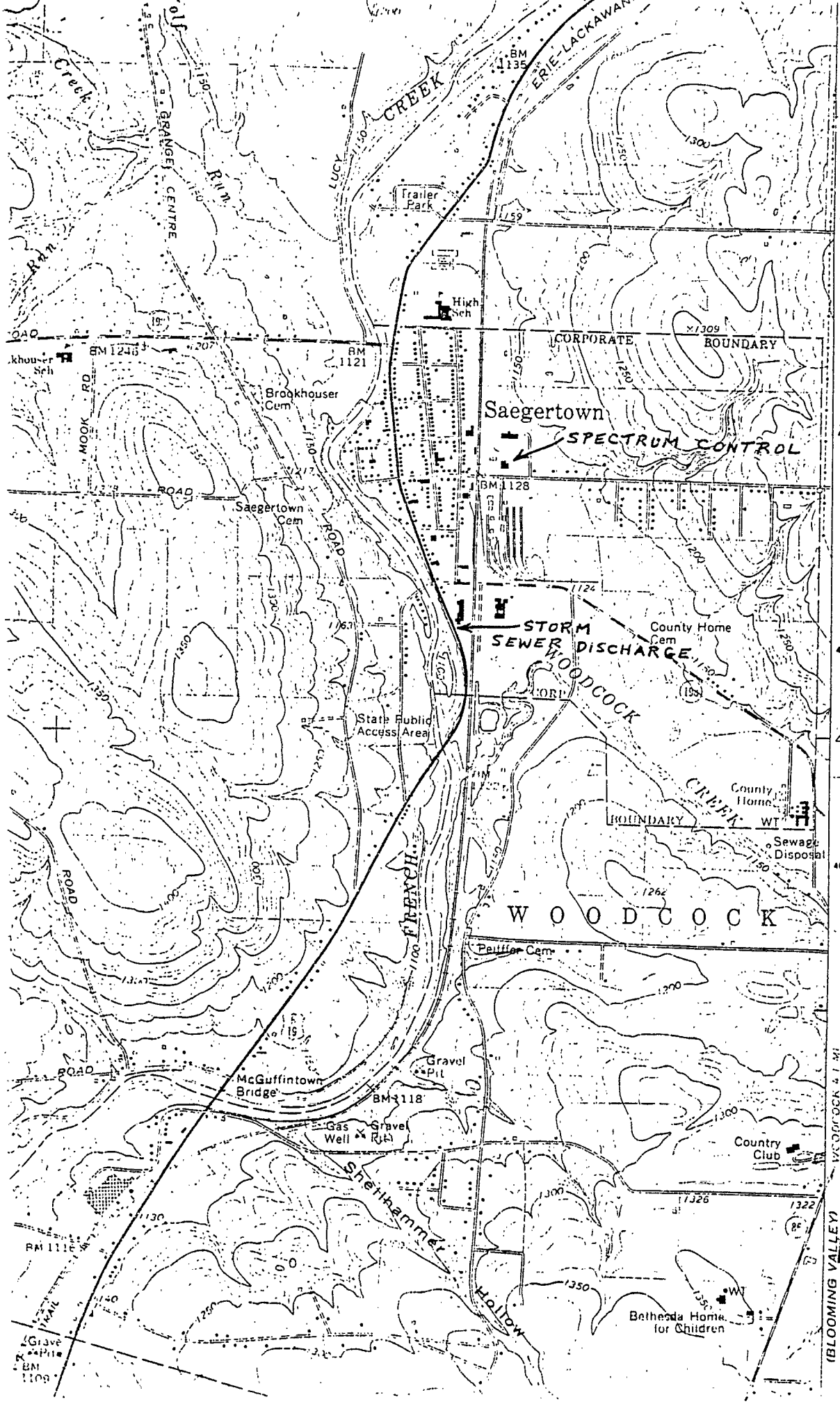
A. MINIMUM 7-CONSECUTIVE-DAY FLOW OCCURRING ONCE IN 10 YEARS?

30 CUBIC FEET PER SECOND

B. MINIMUM STREAM FLOW? 22 CUBIC FEET PER SECOND

AR200847

* ATTACH A U. S. GEOLOGICAL SURVEY 7.5' OR 15' QUADRANGLE MAP SHOWING EXACT POINT(S) OF DISCHARGE.


Saegertown
SPECTRUM CONTROL
CORPORATE BOUNDARY
STORM SEWER DISCHARGE
WOODCOCK CREEK
WOODCOCK
Trailer Park
High Sch
Brookhouser Cem
Saegertown Cem
County Home Cem
State Public Access Area
County Home
Sewage Disposal
Pettifer Cem
McGuffintown Bridge
Gravel Pit
Gas Well
Country Club
Bethesda Home for Children
BM 1135
BM 1246
BM 1121
BM 1128
BM 1118
BM 1116
BM 1109
580 000 FEET
42'30"
4620
4619
4618
4617
7.5 MIN.
MEADVILLE, PA.
(BLOOMING VALLEY) 4967 II NE

AR200848

ER 8WQ-51.2

DATE PREPARED 8-6-77

DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION
INDUSTRIAL WASTES

For Department Use Only

F. RECEIVING STREAM – CONTINUED

C. FLOWS (FROM ITEMS 3.A. AND 3.B.) ARE BASED ON: ☑ MEASUREMENTS 16 YEARS OF RECORD.
☐ ESTIMATES

D. IF STREAM GOES DRY, FOR HOW MANY DAYS PER YEAR? _____

4. IS THE TREATMENT PLANT SUBJECT TO FLOODING? ☐ Yes ☑ No

5. THE PROBABILITY OF THE TREATMENT PLANT BEING OUT OF SERVICE DUE TO FLOODING IS ONCE IN 0 YEARS.

A. LIST BRIEFLY THE METHODS USED FOR FLOOD PROTECTION: FLOOR ELEVATION IS ABOVE MAXIMUM FLOOD LEVEL

6. TO THE BEST OF YOUR KNOWLEDGE, WILL THE TREATED WASTE DISCHARGE ADVERSELY AFFECT:

A. DOMESTIC WATER SUPPLY?	☐ Yes	☑ No
B. BATHING?	☐ Yes	☑ No
C. STOCK WATERING?	☐ Yes	☑ No
D. FISH AND AQUATIC LIFE?	☐ Yes	☑ No
E. INDUSTRIAL WATER SUPPLY?	☐ Yes	☑ No
F. IRRIGATION?	☐ Yes	☑ No
G. BOATING AND AESTHETICS?	☐ Yes	☑ No
H. POWER AND NAVIGATION?	☐ Yes	☑ No

7. IF ANY ITEMS IN 6 ABOVE ARE ANSWERED YES, INDICATE LOCATION AND EXTENT OF ADVERSE EFFECT:

AR200849

ER-BWQ-51.2

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8-6-77
DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 2 – GENERAL INFORMATION
INDUSTRIAL WASTES

For Department Use Only

G. PROCESS WATER – CONTINUED

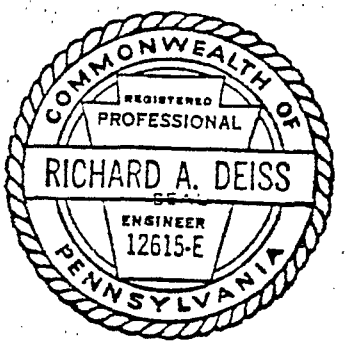
TABLE II

SOURCE	NAME	AVERAGE WATER USE (MGD)
PUBLIC SUPPLY (INDICATE PURVEYOR & WATERSHED)	SAEGERTOWN BOROUGH	17,200
WELLS		
RIVER, STREAM, OR LAKE		
OTHER (SPECIFY)		

H. SEAL AND SIGNATURE OF PROFESSIONAL ENGINEER OR SURVEYOR RESPONSIBLE FOR THIS APPLICATION

1. SIGNATURE OF PROFESSIONAL ENGINEER
(Or Surveyor Where Permitted By Law)

2. SEAL OF PROFESSIONAL ENGINEER
(Or Surveyor Where Permitted By Law)



AR200850

RICHARD A. DEISS & ASSOCIATES
Consulting Engineers
R. D. 1, Alden Street Ext.
Meadville, Pa. 16335

November 28, 1979

Mr. Webster Jones
Environmental Protection Specialist
Pennsylvania Department of Environmental Resources
1012 Water Street

Re: Pollution Incident Prevention Plan
Spectrum Control Inc.
Saegertown Borough, Crawford County

Dear Mr. Jones:

Enclosed are two copies of the Revised Notification Procedure for the Spectrum Control Pollution Incident Prevention Plan. Please add them to the Plan copies in your files.

If you have any other suggestions or recommendations for the Plan, please let me know. Spectrum Control is ready to order the treatment system as soon as the permit is issued so anything you can do to expedite the application processing will be appreciated.

Very truly yours,

Richard A. Deiss, P. E.

RAD/ced

Enclosure

cc: Jack Baker

SPECTRUM CONTROL INC.

SAEGERTOWN BOROUGH, CRAWFORD COUNTY

ENGINEERING NARRATIVE

The Spectrum Control Inc. Saegertown plant is engaged in the production of electronic components. Waste waters are produced by plating line rinses, spent plating solutions, ceramic part rinse, and non-contact cooling waters from compressor and ceramic kiln cooling.

The non-contact cooling waters are discharged at ambient temperatures and no treatment will be provided.

The plating rinses and spent solutions will be segregated into cyanide bearing wastes and non-cyanide bearing wastes. The small amount of water from the ceramic part rinse is included in the non-cyanide bearing wastes. The cyanide bearing wastes will be batch treated prior to mixing with the other wastes and final pH adjustment. The batch treatment will consist of feeding sodium hydroxide until the pH is 10.5 or higher and the batch maintains said high pH. Sodium hypochlorite will then be added to oxidize the cyanide to cyanate. The pH will then be lowered to 8.0 by the addition of sulfuric acid to oxidize the cyanate to harmless nitrogen and carbon dioxide. The batch treatment will be monitored by an indicating and recording pH meter and oxidation-reduction

potential (ORP) meter to insure completion of the reaction. A controller consisting of a stepping-switch programmer and timers will be utilized to assist the plant operator in controlling the chemical feeders. The waste will not be discharged from the batch tank until the oxidation is complete. Two manual discharge valves are provided to decrease the possibility of the discharge of inadequately treated wastewater. Both valves must be opened by the operator before the water can leave the tank. The recording pH and ORP meters will provide a record of the treatment of each batch. The batch tank with a capacity of 2314 gallons is ample to handle the cyanide bearing wastewater from one shift of work.

The non-cyanide bearing wastes will be continuously treated by pH adjustment for oxidation of metals by use of an Industrial Filter & Pump Mfg. Co. "Finalizer" (a flash mixing device with calcium hydroxide and sulfuric acid feed pumps and solution tanks). The wastewater will then be passed through a pressure diatomaceous earth filter to remove the precipitated solids. Provision is made for recirculating the effluent through the filter.

PROCESSES PRODUCING WASTES

Cooling Waters: All of the cooling waters are non-contact waters.

Kiln Cooling: Ceramic parts are fired in kilns. The parts travel through the kilns on small wheeled cars running along tracks (much

like miniature railroad cars). The cooling water is from water run through a tube in each track in order to cool the tracks.

Compressor Cooling: The air compressors have aftercoolers (enclosed jackets to cool the air). The cooling water flow is intermittent.

Developing Room Cooling: The degreaser in the developing room has an enclosed jacket for cooling. The degreaser is not used every day and when used, is in operation only about 2 hours per day, so that the cooling water flow is small.

Plating Waters: The plating waste waters originate from rinses following the plating and cleaning baths. The plating operation is manually conducted and efforts are made to minimize the drag-out and the volume of rinse water discharged. Rinse water flow is regulated as much as possible by automatic valves with conductivity sensors.

The solutions used consist of alkaline cleaners, and nickel, silver, and tin plating baths. The silver bath is a silver cyanide solution.

Ceramic Etching: A 2% hydrofluoric acid solution is used to etch barium bearing ceramic parts. When the parts are rinsed some

fluoride and barium enter the rinse water.

The spent acid and alkaline solutions from the plating operation may be hauled away for disposal or may be added into the waste treatment system at a controlled rate. No spent cyanide solution will be treated in the treatment system. The solids from the filter, and at times the other spent solutions, will be disposed of at Frontier Chemical, Niagara Falls, New York, or other approved site. Spent silver cyanide solutions and dragout will be returned to the chemical supplier (OxyMetal Industries Corporation, Philadelphia, Pa.) for silver recovery.

Richard A. Deiss, P. E.

Richard A. Deiss & Associates
Consulting Engineers

ER-BWQ-51.4 REV. 11-76

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

DATE PREPARED: 8-6-77
DATE REVISED: 1-9-79 Flow

For Department Use Only

MODULE 4 – WASTE LOAD AND CHARACTERISTICS

TABLE I – WASTE STATUS REPORT

INDICATE TOTAL WASTE FLOW FROM ESTABLISHMENT, FROM ALL SOURCES: 0.0172 MGD		SOURCE OF WASTE: NON-CONTACT COOLING WATER OUTFALL NO. OR LOCATION: STORM SEWER OUTFALL			SOURCE OF WASTE: PLATING LINE RINSES AND SOLUTIONS OUTFALL NO. OR LOCATION: STORM SEWER OUTFALL		
1. TYPE OF WASTE		NON-CONTACT COOLING WATER			HEAVY METALS, LOW pH		
2. FLOW		UNIT EXISTING	UNIT PROPOSED		UNIT EXISTING	UNIT PROPOSED	
	A. MGD (AVERAGE)			0.0072			0.010
	B. MGD (MAXIMUM)			0.0072			0.010
3. SEQUENCE OF TREATMENT STEPS						2	COLLECTION SUMP
				NONE		1	BATCH CYANIDE TREATMENT
						1	NEUTRALIZATION
						1	FILTRATION

NOTE: IN REPORTING WASTE CHARACTERISTICS ON THE NEXT PAGE THE FOLLOWING PRACTICES SHALL BE FOLLOWED:

1. The values shown in this module are to represent the untreated wastes and the finished wastes after treatment. The proposed discharge values will be used to establish effluent limitations. The column entitled "Proposed (Future) Discharge to Commonwealth Waters" should reflect the effluent limitations in the NPDES permit.

2. List *all pollutants present* in the wastewater and show the concentration of each.

3. Tests must be performed according to methods approved in Regulation 91.42.

4. Characteristic values shall be reported as follows:
   - T - Typical value appropriate for design purposes, not necessarily a precise average
   - A - 30-day average - the average of all daily sampling reported within any 30-day period OR -- a similar average for a different period, when so specified. Example: A_5 - average of all daily sampling reported within 5-day period, etc.
   - M - Maximum - that value which will not be exceeded in any grab sample
   - Min - Minimum - that value which will be met or surpassed in any grab sample

5. Maximum values shall be given for all *toxic* materials, defined as those materials included on a list of toxic pollutants published by the Environmental Protection Agency pursuant to section 307(a) of the Water Pollution Control Act, 38 FR 24344, *plus* hexavalent chromium.

6. "Summer" is defined as the period May 1 thru October 31. "Winter" is defined as the period November 1 thru April 30.

AR200856

ER-BWQ-51.4 REV. 11-76

COMMONWEALTH OF PENNSYLVANIA
DEPARTMEN OF ENVIRONMENTAL RESOURCES
WAT QUALITY MANAGEMENT

WATER POLLUTION CONTROL

DATE PREPARED 8-6-77

DATE REVISED Rev 1-9-79 Flow Rev 8-15-79 Limits

For Department Use Only

MODULE 4 – WASTE LOAD AND CHARACTERISTICS

TABLE II – WASTE LOAD CHARACTERISTICS

			SOURCE OF WASTE: NON-CONTACT COOLING WATER OUTFALL NO. 002 OR LOCATION: STORM SEWER			SOURCE OF WASTE: PLATING LINE OUTFALL NO. 001 OR LOCATION: STORM SEWER		
			Influent To Proposed Treatment Plant Or Unit	Present Discharge To Commonwealth Waters	Proposed (Future) Discharge To Commonwealth Waters	Influent To Proposed Treatment Plant Or Unit	Present Discharge To Commonwealth Waters	Proposed (Future) Discharge To Commonwealth Waters
1.	WASTE FLOW Mgd		T 0.0072	A M	A M 0.0072	T 0.010	A M	A M 0.010
2.	COLOR Units		T	A M	A M	T	A M	A M
3.	TEMPERATURE Deg.F	Summer	T 65	T	M AMBIENT	T	T	M
		Winter	T 65	T	M AMBIENT	T	T	M
4.	pH Units		T	Min. M	Min. 6.0 M 9.0	T 5.0	Min. M	Min. 6.0 M 9.0
5.	ALKALINITY (Minus for Acid) Mg/L		T	A M	A M	T-160	A M	≈180. M
6.	SOLIDS – SUSPENDED Mg/L		T	A M	A M	T	A M	A M 60.
	SOLIDS – SUSPENDED Lbs/Day		T	A	A	T	A	A
8.	SOLIDS – DISSOLVED Mg/L		T	A M	A M	T	A M	A M
9.	BOD (5 Day 20° C) Mg/L	Summer	T	A M	A M	T	A M	A M
10.	BOD (5 Day 20° C) Mn/L	Winter	T	A M	A M	T	A M	A M
11.	BOD (5 Day 20° C) Lbs/Day	Summer	T	A M	A M	T	A M	A M
12.	BOD (5 Day 20° C) Lbs/Day	Winter	T	A M	A M	T	A M	A M
13.	AMMONIA NITROGEN Mg/L	Summer	T	A M	A M	T	A M	A M
14.	AMMONIA NITROGEN Mg/L	Winter	T	A M	A M	T	A M	A M
15.	TOTAL PHOSPHORUS (asP) Mg/L		T	A M	A M	T	A M	A M
16.	DISSOLVED OXYGEN Mg/L		T	A Min.	A Min.	T	A Min.	A Min.
17.	OIL Mg/L		T	A M	A M	T	A M	A 20. M 30.
18.	FECAL COLIFORMS * Per 100 ML		T	A M	A M	T	A M	A M
	OTHER (SPECIFY) (Give Units)		T	A M	A M	T	A M	A M
	COPPER mg/l		T	A M	A M	T 6.0	A M	A 0.84 M 1.0

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* Geometric mean of five consecutive samples

ER-BWQ-51.4 REV. 11-76

COMMONWEALTH OF PENNSYLVANIA
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WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

DATE PREPARED: 8-6-77
DATE REVISED: 8-15-79 Limits

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MODULE 4 – WASTE LOAD AND CHARACTERISTICS

TABLE II – WASTE LOAD CHARACTERISTICS – CONTINUED

	SOURCE OF WASTE: ____ OUTFALL NO. OR LOCATION: ____			SOURCE OF WASTE: PLATING LINE OUTFALL NO. OR LOCATION: STORM SEWER		
	Influent To Proposed Treatment Plant Or Unit	Present Discharge To Commonwealth Waters	Proposed (Future) Discharge To Commonwealth Waters	Influent To Proposed Treatment Plant Or Unit	Present Discharge To Commonwealth Waters	Proposed (Future) Discharge To Commonwealth Waters
OTHER (Specify) (Give Units)	T	A / M	A / M	T	A / M	A / M
NICKEL mg/l	T	A / M	A / M	T 4.5	A / M	A 0.84 / M 1.0
SILVER mg/l	T	A / M	A / M	T 5.0	A / M	A 0.04 / M 0.05
TIN mg/l	T	A / M	A / M	T 2.0	A / M	A 1.7 / M 2.0
CYANIDE, TOTAL mg/l	T	A / M	A / M	T 5.5	A / M	A 0.84 / M 1.0
CYANIDE, FREE mg/l	T	A / M	A / M	T	A / M	A 0.084 / M 0.25
BARIUM mg/l	T	A / M	A / M	T	A / M	A 0.84 / M 1.0
FLUORIDE mg/l	T	A / M	A / M	T	A / M	A 1.7 / M 2.0
IRON, TOTAL mg/l	T	A / M	A / M	T	A / M	A 7.0 / M 12.0
	T	A / M	A / M	T	A / M	A / M
	T	A / M	A / M	T	A / M	A / M
	T	A / M	A / M	T	A / M	A / M
	T	A / M	A / M	T	A / M	A / M

REMARKS:

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DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 8 – PUMPING FACILITIES

(Do Not Use This Module For Sewage Pumping Stations)

For Department Use Only

TABLE I – LIST ALL THE PUMPS IN THE FACILITY. CLASSIFY EACH PUMP ACCORDING TO THE CLASSIFICATION KEY AND ANSWER ALL RELEVANT QUESTIONS.

NUMBER-OF-IDENTICAL-PUMPS	CLASSIFICATION KEY (Indicate By Letter)	Classification Key: INDICATE POINT OF SUCTION	MAXIMUM SUCTION HEAD (FT.)	SPECIFY POINT OF DISCHARGE	PRESSURE LINE VELOCITY (FPS.)	Check Columns That Apply To Each Pump: EXISTING	PROPOSED	VARIABLE SPEED	CONSTANT SPEED	AUTOMATIC CONTROL	MANUAL CONTROL	PNEUMATIC EJECTOR	STANDBY OPERATION	Pump Capacity (GPM.)	Pump Capacity TDH (FT.)	Wet Well Or Sump: TOTAL CAPACITY (GAL.)	EFFECTIVE CAPACITY (GAL.)	DETENTION PERIOD (MIN.)
1	(P-1) A	CN COLLECTION SUMP	10'	BATCH TANK	N/A		✓		✓	✓				15	25	245	200	VARIES
2	(P-3) G	FILTER SUPPLY TANK	7'	PRESSURE FILTER	N/A		✓		✓		✓			20	115	610	650	VARIES
1	FINAL-IZER A	COLLECTION SUMP #2	10'	FILTER SUPPLY TANK	N/A		✓		✓	✓				20		245	200	VARIES

Classification Key:
A. RAW WASTE PUMP
B. RECIRCULATION PUMP
C. RAW SLUDGE PUMP
D. SLUDGE RECIRCULATION PUMP
E. EFFLUENT PUMP
F. MINE DEWATERING PUMP
G. OTHER (Specify) PRESSURE FILTER PUMP

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DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 9 – FLOW EQUALIZATION AND STORAGE BASINS

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TABLE I COMPLETE ALL APPLICABLE INFORMATION			UNIT CN SUMP ☐ EXISTING ☑ PROPOSED	UNIT DUMPS TANK ☐ EXISTING ☑ PROPOSED	UNIT SUMP #2 ☐ EXISTING ☑ PROPOSED
INDICATE FUNCTION			Storage of: ☑ Untreated Waste Water ☐ Treated Waste Water	Storage of: ☑ Untreated Waste Water ☐ Treated Waste Water	Storage of: ☑ Untreated Waste Water ☐ Treated Waste Water
WASTE ENTERS THIS UNIT FROM: (Indicate Unit)			PLATING LINE	PLATING LINE	PLATING LINE + BATCH
MATERIALS AND CHARACTERISTICS	1.	~~a. CONCRETE~~ POLYETHYLENE *	☑	☐	☑
		b. WOOD	☐	☐	☐
		c. STEEL	☐	☑	☐
		d. EARTHEN (Excavation, Diked)	☐	☐	☐
	EARTHEN BASINS ONLY	(1) INSIDE SLOPE (Vert.: Horiz.)	1:	1:	1:
		(2) OUTSIDE SLOPE (Vert.: Horiz.)	1:	1:	1:
		(3) BERM WIDTH (Ft.)			
		(4) LINING MATERIAL, IF ANY			
		(5) THICKNESS OF LINING MATERIAL			
AVERAGE DIMENSIONS	2.	a. LENGTH (Ft.) ‡	4.'		4.'
		b. WIDTH (Ft.) ‡	3.'		3.'
		c. OR DIAMETER (Ft.)		2.0'	
		d. DEPTH (1) NORMAL OPERATING DEPTH (Ft.) ‡	2.25'	4.5'	2.25'
		d. DEPTH (2) MAXIMUM AVAILABLE DEPTH (Ft.) ‡	2.25'	4.5'	2.25'
		e. FREEBOARD (Ft.)	0.5'	0.5'	0.5'
DESIGN DATA	3.	a. CAPACITY (1) NORMAL OPERATING CAPTY. (Gal.)	200.	106.	200.
		a. CAPACITY (2) TOTAL	COMPUTE THE TOTAL FOR ALL UNITS HERE:		N/A
		a. CAPACITY (3) MAXIMUM AVAILABLE CAPTY. (Gal.)	200.		200.
		b. DISCHARGE TO UNIT (1) Flow (MGD)	0.0025	VARIABLE	0.01
		b. DISCHARGE TO UNIT (2) DURATION (Hrs./Day)	16.	"	16.
		c. DISCHARGE FROM UNIT (1) Flow (MGD)	0.0025	"	0.01
		c. DISCHARGE FROM UNIT (2) DURATION (Hrs./Day)	16.	"	16.
		d. DETENTION (1) AVERAGE (Hrs.)	VARIES	"	VARIES
		d. DETENTION (2) MAXIMUM (Hrs.)	"	"	"

A. GENERAL INFORMATION

1. DESCRIBE OUTLET AND METHOD OF WATER LEVEL CONTROL: CN SUMP = PUMP AND LEVEL CONTROL SWITCH. DUMPS TANK = MANUAL OPERATED VALVE. SUMP #2 = MANUAL START-UP OF FINALIZER PUMP WHEN PLATING LINE IS RUNNING.

2. HOW WILL SEDIMENT ACCUMULATION IN THE UNIT BE MINIMIZED? SEDIMENT WILL BE MINIMAL AT THIS STAGE OF TREATMENT.

3. WILL SURFACE WATER BE DIVERTED FROM THE BASIN? ☑ Yes ☐ No

4. WILL SIDES BE PROTECTED AGAINST WAVE ACTION? ☐ Yes ☐ No N/A

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NOTE: COMPLETE APPROPRIATE PORTIONS OF MODULE 5 IF AN EARTHEN BASIN IS USED.

* LINED STEEL MAY BE USED.
‡ ACTUAL DIMENSIONS MAY VARY, BUT CAPACITY AND FREEBOARD ARE FIXED.

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COMMONWEALTH OF PENNSYLVANIA
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WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 9 – FLOW EQUALIZATION AND STORAGE BASINS

For Department Use Only

TABLE I COMPLETE ALL APPLICABLE INFORMATION			UNIT FILTER SUPPLY TANK ☐ EXISTING ☑ PROPOSED	UNIT _____ ☐ EXISTING ☐ PROPOSED	UNIT _____ ☐ EXISTING ☐ PROPOSED
INDICATE FUNCTION			Storage of: ☐ Untreated Waste Water ☑ Treated Waste Water	Storage of: ☐ Untreated Waste Water ☐ Treated Waste Water	Storage of: ☐ Untreated Waste Water ☐ Treated Waste Water
WASTE ENTERS THIS UNIT FROM: (Indicate Unit)			FINALIZER		
MATERIALS AND CHARACTERISTICS 1.	a. CONCRETE		☐	☐	☐
	b. WOOD		☐	☐	☐
	c. STEEL		☑	☐	☐
	d. EARTHEN (Excavation, Diked)		☐	☐	☐
	EARTHEN BASINS ONLY	(1) INSIDE SLOPE (Vert.: Horiz.)	1: _____	1: _____	1: _____
		(2) OUTSIDE SLOPE (Vert.: Horiz.)	1: _____	1: _____	1: _____
		(3) BERM WIDTH (Ft.)			
		(4) LINING MATERIAL, IF ANY			
		(5) THICKNESS OF LINING MATERIAL			
AVERAGE DIMENSIONS 2.	a. LENGTH (Ft.)				
	b. WIDTH (Ft.)				
	c. OR DIAMETER (Ft.)		4.5'		
	d. DEPTH	(1) NORMAL OPERATING DEPTH (Ft.)	5.5'		
		(2) MAXIMUM AVAILABLE DEPTH (Ft.)	5.5'		
	e. FREEBOARD (Ft.)		0.5'		
DESIGN DATA 3.	a. CAPACITY	(1) NORMAL OPERATING CAPTY. (Gal.)	650.		
		(2) TOTAL	COMPUTE THE TOTAL FOR ALL UNITS HERE:		650.
		(3) MAXIMUM AVAILABLE CAPTY. (Gal.)	650.		
	b. DISCHARGE TO UNIT	(1) Flow (MGD)	0.01		
		(2) DURATION (Hrs./Day)	16.		
	c. DISCHARGE FROM UNIT	(1) Flow (MGD)	0.01		
		(2) DURATION (Hrs./Day)	16.		
	d. DETENTION	(1) AVERAGE (Hrs.)	VARIES		
		(2) MAXIMUM (Hrs.)	"		

A. GENERAL INFORMATION

1. DESCRIBE OUTLET AND METHOD OF WATER LEVEL CONTROL: PUMPED OUTLET ; LEVEL CONTROL SWITCH

2. HOW WILL SEDIMENT ACCUMULATION IN THE UNIT BE MINIMIZED? A MIXER IS PROVIDED.

3. WILL SURFACE WATER BE DIVERTED FROM THE BASIN? ☑ Yes ☐ No

4. WILL SIDES BE PROTECTED AGAINST WAVE ACTION? ☐ Yes ☐ No N/A

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NOTE: COMPLETE APPROPRIATE PORTIONS OF MODULE 5 IF AN EARTHEN BASIN IS USED.

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WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

Module 18 – Chemical Treatment (Including Feeders)
(Do Not Use To Describe Disinfection Facilities)

For Department Use Only

(Submit appropriate module for each different chemical treatment process)

A. CHEMICAL TREATMENT CYANIDE BATCH TREATMENT

☐ Existing ☑ Proposed

1. TYPE OF PROCESS:

☑ Batch ☐ Continuous

☐ Neutralization
☐ Acid Cracking of Emulsion
☑ Oxidation
☐ Precipitation
☐ Reduction
☐ Other (Specify) _____

2. DESCRIBE PROCESS: RAISE THE WASTEWATER pH to 10.5 BY THE ADDITION OF NaOH, then FEED NaClO to oxidize the CYANIDE, LOWER THE pH to 8.0 BY H_2SO_4 ADDITION TO COMPLETE THE REACTION.

3. WASTE ENTERS THIS UNIT FROM CN COLLECTION SUMP

4. TIME REQUIRED FOR PROCESS IS 0.5 HOURS ~~MINUTES~~.

5. DETENTION TIME PROVIDED IN REACTION UNIT IS 2+ HOURS ~~MINUTES~~.

6. OF WHAT MATERIAL IS THE REACTION UNIT CONSTRUCTED? STEEL, RESISTANT PAINTED

7. IS THE MATERIAL IN ITEM 5 RESISTANT TO THE RAW AND TREATED WASTE AND CHEMICALS USED? ☑ Yes ☐ No

8. WILL THE PROCESS RESULT IN THE PRECIPITATION OF SOLIDS? ☑ Yes ☐ No

A. IF YES, WILL THE SOLIDS BE RETAINED IN THE REACTION UNIT? ☐ Yes ☑ No

B. IF NO, WILL A SETTLING UNIT BE PROVIDED FOR SOLIDS REMOVAL? ☐ Yes ☑ No PRESSURE FILTER.

C. IF SOLIDS WILL BE RETAINED IN THE REACTION UNIT, DESCRIBE METHOD AND FREQUENCY OF SOLIDS REMOVAL AND LOCATION OF SOLIDS DISPOSAL (If To Land, Complete Module 5):

9. WILL THE PROCESS INCREASE TOTAL SOLIDS? ☑ Yes ☐ No

A. IF YES, SPECIFY INCREASE: ≈ 400 MILLIGRAMS PER LITER.

10. WILL CHEMICALS USED IN THE TREATMENT PROCESS PRODUCE ODORS OR TOXIC GASES? ☐ Yes ☑ No

A. IF YES, ARE MEASURES BEING TAKEN TO CONTROL HAZARDS AND NUISANCES TO EMPLOYEES AND SURROUNDING POPULATION? ☐ Yes ☐ No

B. IF YES, INDICATE METHODS:

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WATER POLLUTION CONTROL

Module 18 – Chemical Treatment (Including Feeders)

(Do Not Use To Describe Disinfection Facilities)

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A. CHEMICAL TREATMENT – CONTINUED

11. IS CHEMICAL STORAGE AREA LARGE ENOUGH TO STOCK AMPLE SUPPLY OF CHEMICALS? ☑ Yes ☐ No

12. IS CHEMICAL STORAGE AREA PROTECTED TO PREVENT ACCIDENTAL DISCHARGE OF HAZARDOUS MATERIALS? ☑ Yes ☐ No

13. EFFLUENT CHARACTERISTICS FROM CHEMICAL TREATMENT UNIT(S) WILL BE: pH > 10.5

14. WHAT TESTS, INSTRUMENTATION AND ALARMS WILL BE PROVIDED TO MONITOR EFFLUENT QUALITY?

a pH and an ORP meter, indicator, recorder with a controller to assist the operator with control of the chemical feeders.

B. CHEMICAL FEEDERS AND CHEMICALS USED IN THE PROCESS

TABLE I

Feeder	Existing	Proposed	CHEMICAL NAME OR TRADE NAME	DOSAGE (MG/L)	APPLICATION POINT	CAPACITY		Manual	Auto	Standby
						Lbs/Day	Range			
1.		✓	NaOH Sodium Hydroxide	will vary	Batch Tank	160 to 770	24.4 to 132 GPD	✓	✓	
2.		✓	NaClO Sodium Hypochlorite	will vary	Batch Tank	160 to 770	24.4 to 132 GPD	✓	✓	
3.4		✓	H_2SO_4 SULFURIC Acid	will vary	Batch Tank	160 to 770	24.4 to 132 GPD	✓	✓	
4.										
5.										

DESCRIBE METHOD OF CONTROL OF FEED RATE: OPERATOR WILL SET CONTROLLER TO ADJUST FEED RATES USING THE pH AND ORP METER. REMOVAL WILL BE CONFIRMED BY WEEKLY EFFLUENT MONITORING.

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DESCRIBE LOCATIONS OF CONTROL POINTS IN FLOW STREAM:

CONTROL IS IN THE BATCH TANK PRIOR TO DISCHARGE.

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Module 18 – Chemical Treatment (Including Feeders)
(Do Not Use To Describe Disinfection Facilities)

For Department Use Only

(Submit appropriate module for each different chemical treatment process)

A. CHEMICAL TREATMENT

☐ Existing ☑ Proposed

1. TYPE OF PROCESS:

☐ Batch
☐ Continuous

☑ Neutralization
☐ Acid Cracking of Emulsion
☐ Oxidation
☐ Precipitation
☐ Reduction
☐ Other (Specify) _____

2. DESCRIBE PROCESS: FLASH MIX NEUTRALIZATION USING CaOH AND H_2SO_4 IN A "FINALIZER" UNIT (INDUSTRIAL FILTER AND PUMP MFG. CO.) WITH AUTOMATIC pH CONTROL.

WASTE ENTERS THIS UNIT FROM SUMP #2

3. TIME REQUIRED FOR PROCESS IS < 1 MINUTES.

4. DETENTION TIME PROVIDED IN REACTION UNIT IS < 1 MINUTES.

5. OF WHAT MATERIAL IS THE REACTION UNIT CONSTRUCTED? STEEL

6. IS THE MATERIAL IN ITEM 5 RESISTANT TO THE RAW AND TREATED WASTE AND CHEMICALS USED? ☑ Yes ☐ No

7. WILL THE PROCESS RESULT IN THE PRECIPITATION OF SOLIDS? ☑ Yes ☐ No

A. IF YES, WILL THE SOLIDS BE RETAINED IN THE REACTION UNIT? ☐ Yes ☑ No

B. IF NO, WILL A SETTLING UNIT BE PROVIDED FOR SOLIDS REMOVAL? ☐ Yes ☑ No
PRESSURE FILTER

C. IF SOLIDS WILL BE RETAINED IN THE REACTION UNIT, DESCRIBE METHOD AND FREQUENCY OF SOLIDS REMOVAL AND LOCATION OF SOLIDS DISPOSAL (If To Land, Complete Module 5):

8. WILL THE PROCESS INCREASE TOTAL SOLIDS? ☑ Yes ☐ No

A. IF YES, SPECIFY INCREASE: ≈ 200 MILLIGRAMS PER LITER.

9. WILL CHEMICALS USED IN THE TREATMENT PROCESS PRODUCE ODORS OR TOXIC GASES? ☐ Yes ☑ No

A. IF YES, ARE MEASURES BEING TAKEN TO CONTROL HAZARDS AND NUISANCES TO EMPLOYEES AND SURROUNDING POPULATION? ☐ Yes ☐ No

B. IF YES, INDICATE METHODS:

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WATER POLLUTION CONTROL

Module 18 – Chemical Treatment (Including Feeders)

(Do Not Use To Describe Disinfection Facilities)

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A. CHEMICAL TREATMENT – CONTINUED

10. IS CHEMICAL STORAGE AREA LARGE ENOUGH TO STOCK AMPLE SUPPLY OF CHEMICALS? ☑ Yes ☐ No

11. IS CHEMICAL STORAGE AREA PROTECTED TO PREVENT ACCIDENTAL DISCHARGE OF HAZARDOUS MATERIALS? ☑ Yes ☐ No

12. EFFLUENT CHARACTERISTICS FROM CHEMICAL TREATMENT UNIT(S) WILL BE: pH 8 to 9

13. WHAT INSTRUMENTATION AND ALARMS WILL BE PROVIDED TO MONITOR EFFLUENT QUALITY?
pH indicator / recorder / controller

B. CHEMICAL FEEDERS AND CHEMICALS USED IN THE PROCESS

TABLE I

Feeder	Existing	Proposed	CHEMICAL NAME OR TRADE NAME	DOSAGE (MG/L)	APPLICATION POINT	CAPACITY		Manual	Auto	Standby
						Lbs/Day	Range			
3.		✓	$CaOH$ Calcium hydroxide	will vary	Finalizer		1200 GPH		✓	
3.		✓	H_2SO_4 Sulfuric Acid	will vary	Finalizer		1200 GPH		✓	
3.										
4.										
5.										

DESCRIBE METHOD OF CONTROL OF FEED RATE: Automatic pH controller/recorder

DESCRIBE LOCATIONS OF CONTROL POINTS IN FLOW STREAM:
Effluent line of Finalizer.

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WATER POLLUTION CONTROL

MODULE 19 – MIXING AND FLOCCULATION FACILITIES

For Department Use Only

TABLE I

INDICATE FUNCTION OF EACH UNIT AND FILL IN OR CHECK ALL RELEVANT DATA.	UNIT CN BATCH TANK	UNIT FINALIZER	UNIT
	☑ Mixing ☐ Quick Mix ☐ Flocculation	☐ Mixing ☑ Quick Mix ☐ Flocculation	☐ Mixing ☐ Quick Mix ☐ Flocculation
	☐ Existing ☑ Proposed	☐ Existing ☑ Proposed	☐ Existing ☐ Proposed
WASTE ENTERS THIS UNIT FROM: (Indicate Unit)	CN COLLECTION SUMP	SUMP #2	
1. Type Of Structure — A. Tank	☑	☑	☐
1. Type Of Structure — B. Earthen Basin	☐	☐	☐
2. DIMENSIONS — A. Length (Ft)	12.5'	N/A	
2. DIMENSIONS — B. Width (Ft)	4.5'		
2. DIMENSIONS — C. Diameter (Ft)			
2. DIMENSIONS — D. SWD (Ft)	5.5'		
2. DIMENSIONS — E. FREEBOARD (Ft)	0.5'		
3. Capacity (Gal)	2314.		
3. Capacity (Cu Ft)	309.		
4. Detention Time (Min)	2+ HOURS	∠ 1	
5. Flow Through Velocity (Fps)	N/A	—	
6. MIXING DEVICES — A. Number Per Unit	2	1	
6. MIXING DEVICES — B. Type Of Mixing Device	PROPELLER	FLASH MIX CHAMBER	
6. MIXING DEVICES — C. Rapid Mixing		✓	
6. MIXING DEVICES — D. Slow Mixing	✓		
6. MIXING DEVICES — *ONLY INDUSTRIAL WASTES APPLICANTS COMPLETE ITEM E*			
6. MIXING DEVICES — E. Sludge (1) Recirculated	☐	☐	☐
6. MIXING DEVICES — E. Sludge (2) Not Recirculated	☑	☑	☐

7. COAGULANT CHEMICALS — LIST CHEMICALS BY NAME OR FORMULA USED IN EACH UNIT..... INDICATE THE FEEDER NUMBER USED AS DESCRIBED IN DETAIL IN "CHEMICAL TREATMENT," MODULE 18.	CHEMICAL	FEEDER	CHEMICAL	FEEDER	CHEMICAL	FEEDER
1.	1. $NaOH$	1	1. $CaOH$	3	1.	
2.	2. $NaClO$	2	2. H_2SO_4	3	2.	
3.	3. H_2SO_4	4	3.		3.	
4.	4.		4.		4.	
5.	5.		5.		5.	
6.	6.		6.		6.	
7.	7.		7.		7.	
8.	8.		8.		8.	

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WATER POLLUTION CONTROL

SLUDGE TREATMENT AND DISPOSAL FACILITIES
MODULE 26G – FILTERS AND CENTRIFUGES

For Department Use Only

TABLE VII	UNIT FILTER ☐ Existing ☑ Proposed	UNIT ☐ Existing ☐ Proposed	UNIT ☐ Existing ☐ Proposed	UNIT ☐ Existing ☐ Proposed
	☐ Vacuum Filter ☑ Pressure Filter ☐ Centrifuge	☐ Vacuum Filter ☐ Pressure Filter ☐ Centrifuge	☐ Vacuum Filter ☐ Pressure Filter ☐ Centrifuge	☐ Vacuum Filter ☐ Pressure Filter ☐ Centrifuge
1. INDICATE UNIT PRODUCING SLUDGE	FINALIZER			
FILTER & CENTRIFUGE — DIMENSIONS — 2. DIAMETER (or width) (Ft.)	3.0'			
DIMENSIONS — LENGTH (Ft.)	5.5'			
DIMENSIONS — AREA (Sq.Ft.)	N/A			
3. FILTERING MEDIUM	DIATOMACEOUS EARTH			
RATED CAPACITY — 4. A. LBS/SQ.FT/HR	VARIES			
RATED CAPACITY — B. LBS/HR				
RATED CAPACITY — C. TONS/DAY				
RATED CAPACITY — D. ~~GU YD/DAY~~	0.18 gpm/sq. FT.			
LOADING — 5. A. WET SLUDGE/Tons/Hr)	VARIES			
LOADING — B. SLUDGE SOLIDS (%)				
6. MOISTURE EXPECTED IN CAKE (%)	≈ 70			
7. CHEMICALS USED (Specify)	NONE			
8. CONDITIONING METHOD (Specify)	DIATOMACEOUS EARTH PRE-COAT			
9. EXTENT OF UNIT USE (~~Hrs/Wk~~)	16 hrs/day			
DISPOSAL — 10. A. FILTRATE (GPD) DISPOSED TO:	Effluent			
DISPOSAL — B. CAKE DISPOSED TO:	APPROVED SITE Frontier Chemical, New York.			

11. IF DUPLICATE MECHIANICAL UNITS ARE NOT PROVIDED, DESCRIBE STANDBY METHOD OF OPERATION. (Use additional sheets if necessary)

If unit is out of order, production lines producing the wastewater will not operate.

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* If To Land, Complete Module 5

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MODULE 27 – HEATED WASTES

For Department Use Only

A. GENERAL INFORMATION

1. NAME OF RECEIVING ☑ Stream ☐ Lake ☐ Estuary FRENCH CREEK

2. AT THE POINT OF DISCHARGE, WHAT WATER TEMPERATURE CRITERION APPLIES:
   - ☐ (d_1) MAXIMUM OF 58° F (Trout propagation stream)
   - ☐ (d_3) MAXIMUM OF 86° F (Delaware Estuary)
   - ☑ (d_2) MAXIMUM OF 87°F
   - ☐ (d_6) MAXIMUM OF 74° F FEB. 15 TO JULY 31, OTHERWISE 87°F, (Trout stocking stream)

3. WILL THE TEMPERATURE OF THE STREAM, AFTER MIXING, AT ANY TIME BE RAISED MORE THAN 5 DEGREES FAHRENHEIT BY THE HEATED DISCHARGE? (This requirement may be more restrictive at lower stream temperatures) ☐ Yes ☑ No

4. HEAT IN THE WASTE WATER ABOVE THE TEMPERATURE CRITERION CHECKED IN ITEM 2 IS 0 BTU/HR. (If zero, no further information required on this sheet).

5. AT THE POINT OF DISCHARGE:

   A. THE MINIMUM 7-DAY, ONCE-IN-10-YEAR FLOW IS _____ cfs (See Module 2, Page 6)

   B. THE STREAM WIDTH AT THAT FLOW IS _____ FEET.

   C. THE AVERAGE STREAM DEPTH AT THAT FLOW IS _____ FEET.

6. AT THE ABOVE DESCRIBED MINIMUM FLOW:

   A. THE AVERAGE STREAM TEMPERATURE AT THE POINT OF DISCHARGE IS _____ DEGREES FAHRENHEIT.

   (Specify source of this value) _____

   B. THE STREAM WILL ABSORB _____ BTU/HR IN ORDER FOR ITS TEMPERATURE TO BE RAISED TO THE APPLICABLE TEMPERATURE CRITERION MAXIMUM.

7. THE HEAT ABSORBING CAPACITY OF THE STREAM SO AS NOT TO EXCEED THE SPECIFIED TEMPERATURE MAY BE AT A MINIMUM AT A TIME OTHER THAN THE PERIOD OF LOW FLOW. FOR EXAMPLE:

   A. THE MAXIMUM STREAM TEMPERATURE OF RECORD IS _____ DEGREES FAHRENHEIT.

   B. AT THIS TEMPERATURE, THE FLOW WAS _____ cfs.

   C. UNDER THESE CONDITIONS, THE STREAM WILL ABSORB _____ BTU/HR IN ORDER FOR ITS TEMPERATURE TO BE RAISED TO THE APPLICABLE TEMPERATURE CRITERION MAXIMUM.

8. SELECT, BETWEEN ITEMS 5 AND 6 ABOVE, WHICH HEAT ABSORBING CAPACITY IS LESS, OR OTHER COMBINATION OF FLOW AND TEMPERATURE KNOWN TO BE MORE CRITICAL.

   FLOW _____ cfs. TEMP. _____ Degrees Fahrenheit. HEAT ABSORBING CAPACITY _____ BTU/HR.

9. AT THE MOST CRITICAL CONDITION, THE TEMPERATURE OF WASTES AND THE RECEIVING STREAM, AFTER COMPLETE MIXING, WILL BE _____ DEGREES FAHRENHEIT.

10. PROVIDE SKETCH OF MIXING ZONE WITHIN WHICH THE ALLOWABLE TEMPERATURE WILL BE EXCEEDED.

    A. THE ESTIMATED LENGTH OF MIXING ZONE REQUIRED TO ACHIEVE COMPLETE MIXING IS _____ FEET.

    B. THE WIDTH OF THE MIXING ZONE WILL BE _____ FEET.

    C. IF DISCHARGE IS EXISTING, PROVIDE ACTUAL TEMPERATURE DATA.

ER-BWQ-51.27

DATE PREPARED 8-6-77

DATE REVISED

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
WATER QUALITY MANAGEMENT

WATER POLLUTION CONTROL

MODULE 27 – HEATED WASTES

For Department Use Only

A. GENERAL INFORMATION – CONTINUED

9. WILL A PATHWAY FOR THE PROTECTION OF AQUATIC LIFE BE MAINTAINED AT ALLOWABLE TEMPERATURE IN THE STREAM AT ALL TIMES? ☑ Yes ☐ No

10. WILL THE TEMPERATURE OF THE STREAM, AFTER MIXING, AT ANY TIME BE RAISED MORE THAN 2 DEGREES FAHRENHEIT DURING ANY ONE-HOUR PERIOD BY THE HEATED DISCHARGE? ☐ Yes ☑ No

11. WILL THE QUANTITY OF HEAT REJECTED TO THE STREAM BE REDUCED OR CONTROLLED BY THE USE OF TEMPERATURE-REDUCING UNITS OR PRACTICES? ☐ Yes ☑ No

12. WILL THE HEATED WASTE DISCHARGE CONTAIN OTHER WASTE CONSTITUENTS REQUIRING PERMIT, BUT FOR WHICH NO PERMIT IS IN FORCE? ☐ Yes ☑ No

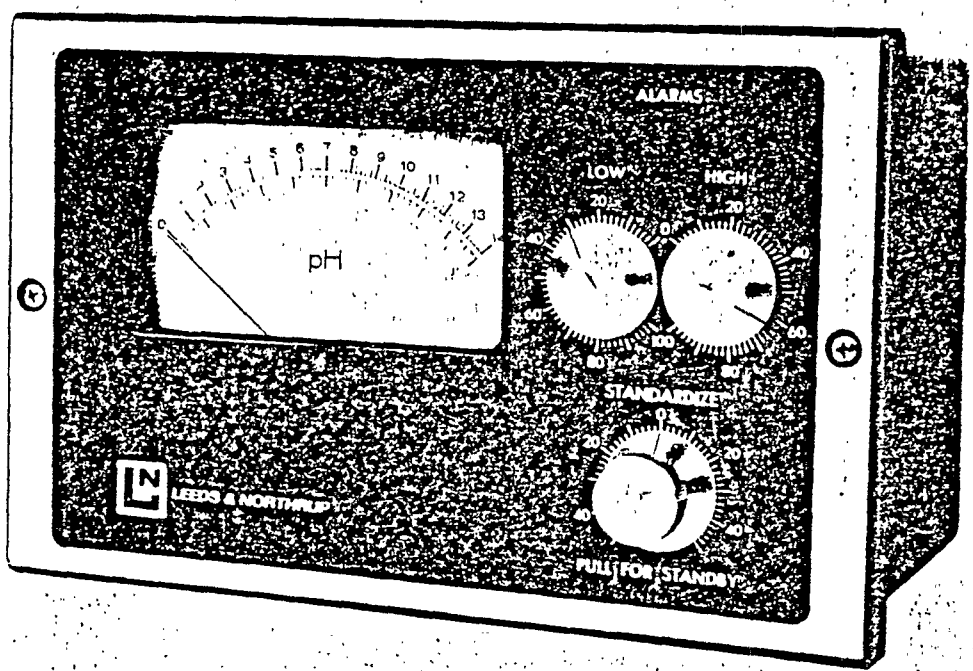
13. ARE THERE ANY OTHER DISCHARGES OF HEATED WASTES TO THE SAME BODY OF WATER IN THE VICINITY? ☐ Yes ☑ No

TABLE I IF TREATMENT UNITS WILL BE EMPLOYED, INDICATE:			UNIT _____ ☐ Existing ☐ Proposed	UNIT _____ ☐ Existing ☐ Proposed	UNIT _____ ☐ Existing ☐ Proposed
TYPE (Lagoons, Cooling Towers, Spray Ponds, Etc.)					
ESSENTIAL DIMENSIONS (Length, Width, Area, Etc.)					
WATER APPLIED TO UNIT –		Gpm			
		Temperature (Deg. F.)			
WATER LEAVING UNIT		Gpm			
		Temperature (Deg. F.)			
HEAT DISSIPATED	BY EACH UNIT	Btu/Hr			
	TOTAL ALL UNITS	Btu/Hr			

ARZ00869

7075 pH and Redox Receiver

C2 1121-DS



- **Low-cost instrument for industrial pH or Redox measurements**
- **Dual alarms can initiate control action**
- **Signal lights for indicating alarm conditions**
- **NEMA-12 case**
- **Voltage output matches most recorders**
- **Used with transmitter-electrode system**
- **Panel, pipe or wall mounting**

The 7075 Receiver is an inexpensive, simplified instrument especially designed to provide low-cost measurement and/or control of pH or redox in industrial processes. The pH or redox measurement is continuously displayed on a high-visibility black-on-yellow scale. Red signal lights on the front panel indicate when a high- or low-alarm condition has been reached. Two independently set alarm/control relays can operate an external alarm or initiate control action. A front-panel knob permits standardization and putting the instrument on "Standby".

Two standard output ranges—0 to 1 and 0 to 10 volts—can be used with most recorders or auxiliary devices such as L&N's 7080 Alarm/Control Modules and 099230 Isolated Current Output Modules (see Data Sheets C12.1390 and C12.1391 respectively).

This instrument is housed in a NEMA-12 case which is dust-proof, splash-proof and corrosion resistant. A universal mounting—for wall, pipe or panel mounting—is included with the instrument.

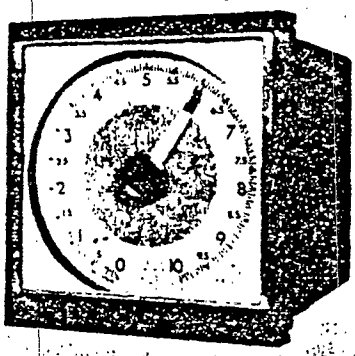
The 7075 Receiver is used with L&N's 7773-1, 7776-1, 7779-3 and 7758-1 Transmitter-Electrode Mountings. These mountings provide shielding which protects the measurement signal from common-mode, "ground loop" or RF interference, and guarding to provide protection against signal downgrading due to humidity or moisture. The mountings permit measurements in grounded or ungrounded solutions; wiring between the transmitter and Receiver can be over long distances using ordinary unshielded cable. For a complete description of these mountings, see Data Sheets D2.1118-DS, D2.1131-DS, D2.1119-DS and D2.1121-DS.

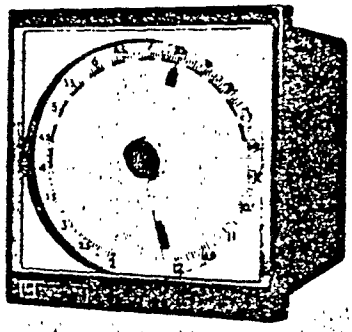
LEEDS & NORTHRUP

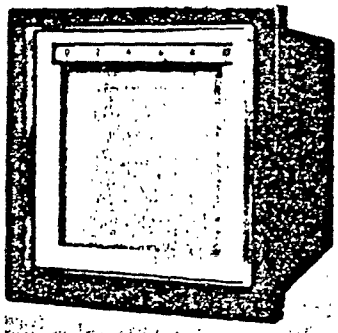
S peedomax® H Indicators, Recorders and Controllers for remote monitoring of pH

pH

C2.1401 • 1969







Remote monitoring of pH is desirable for many applications in production processes and plant wastes. For such requirements, Speedomax H instruments, used with a high-impedance transmitter, such as the L&N pH monitor, are providing economical and reliable answers, recording or indicating pH values.

These indicators, recorders or controllers offer wide flexibility, since the transmitter with continuous indication can be located near the point of measurement, while the recorder is mounted in a remote area. Alarms, signals, and remote indicators can be operated by the recorder, or it can be equipped to operate one of a variety of automatic controls to maintain a pre-set pH value.*

A CHOICE OF MODELS The Model R Indicator has a large black pointer which continuously indicates the measured value on a circular scale, 23" in calibrated length.

The Model R Recorder not only indicates on a scale of the same calibrated circumference, but records on a round chart having an overall diameter of 8" and a calibrated radius of 3". Chart speed may be one revolution in 8 or 24 hours, as specified.

The Model S Recorder indicates the measured value on a straight scale and records it on a strip chart 6½" in calibrated width. The chart paper travels over a flat plate so that notes can be jotted on it without interrupting operation. A 7½" section of chart is always in view.

The Multi-point Recorder logs the output from several pH monitors.

DEPENDABLE POTENTIOMETER CIRCUIT For pH or millivoltage measurements, the electronic null-balancing Speedomax H instrument is supplied as a d-c potentiometer. Three *standard* chart ranges plus other special ranges are available for pH measurements. If field conversion of one range to another is desirable, it's simple to replace the indicating scale and range card.

The Speedomax H instrument is housed in a sturdy, cast aluminum case only 12" high x 11" wide. The door, with glass window, has a rubber gasket to keep out dirt.

All external leads are brought to a terminal board accessible from the rear of the instrument. No field connections need be made within the instrument—internal components are not exposed to accidental damage during installation.

Features

TYPE—Indicating recorder (round or strip chart record) or indicator (no record). Employs solid state electronic amplification of unbalance and a reversing motor to effect balancing action. For use with 7070 pH Monitor.

MEASURING CIRCUIT—D-c potentiometer.

CHART RANGE—0 to 10 pH, 2 to 12 pH, or 6 to 13 pH—uniform unmarked charts available for other ranges upon request.

INDICATING SCALE—Model R: circular, 23" calibrated circumference. Model S: straight, 6½" calibrated width.

RECORD—Continuous line. Model R chart width, 3" calibrated radius; Model S, 6½" calibrated width.

SPAN STEP-RESPONSE-TIME RATING — 5 seconds, nominal, full scale. Also available for 1 second, nominal.

CHART SPEED—Model R: one revolution in 8 or 24 hours, or in 48 minutes, as specified. Model S: any of 18 single speeds ranging from 1" to 480" per hour—more than 100 switch-selected, two-speed combinations, 360"/hr maximum.

MEASURING-CIRCUIT CURRENT SOURCE — Supplied by a-c line, rectified, and regulated by Zener-diode circuit.

POWER SUPPLY—120 volts, 60 or 50 hertz, as specified.

CASE—Cast aluminum, 12" high x 11" wide x 13" deep with gasketed door.

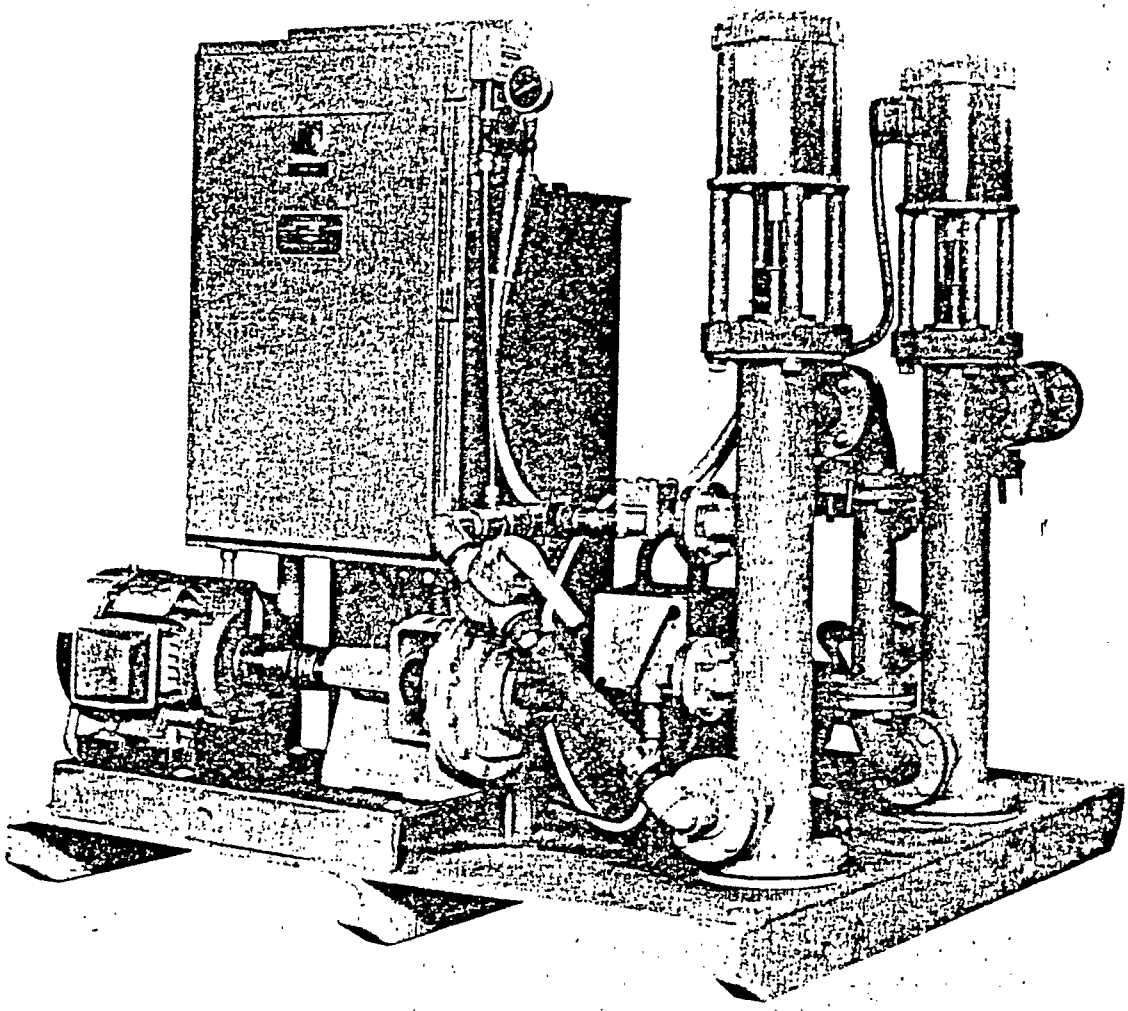
*Close control of process pH depends, to a great extent, on conditions present in individual applications. Since L&N components for an integrated system for pH control include a variety of control devices, recorders, indicators, preamplifiers and electrodes, inquiries are invited from which control recommendations can be made.

INDUSTRIAL

BULLETIN

810-820

FINALIZER



INDUSTRIAL'S all new 800 series of inorganic waste*FINALIZERS** embodies a revolutionary new concept of *total-in-line treatment.* Compact and efficient, these new systems are an integral segment of *INDUSTRIAL'S* new "Building-Block" approach to sane and safe waste treatment. Using the "Building-Block" approach, it is possible to treat one waste source at a time and yet adopt a long range waste treatment plant plan that assures the customer that each treatment segment, when and if it is purchased, will dovetail exactly with the last segment installed.

INDUSTRIAL®

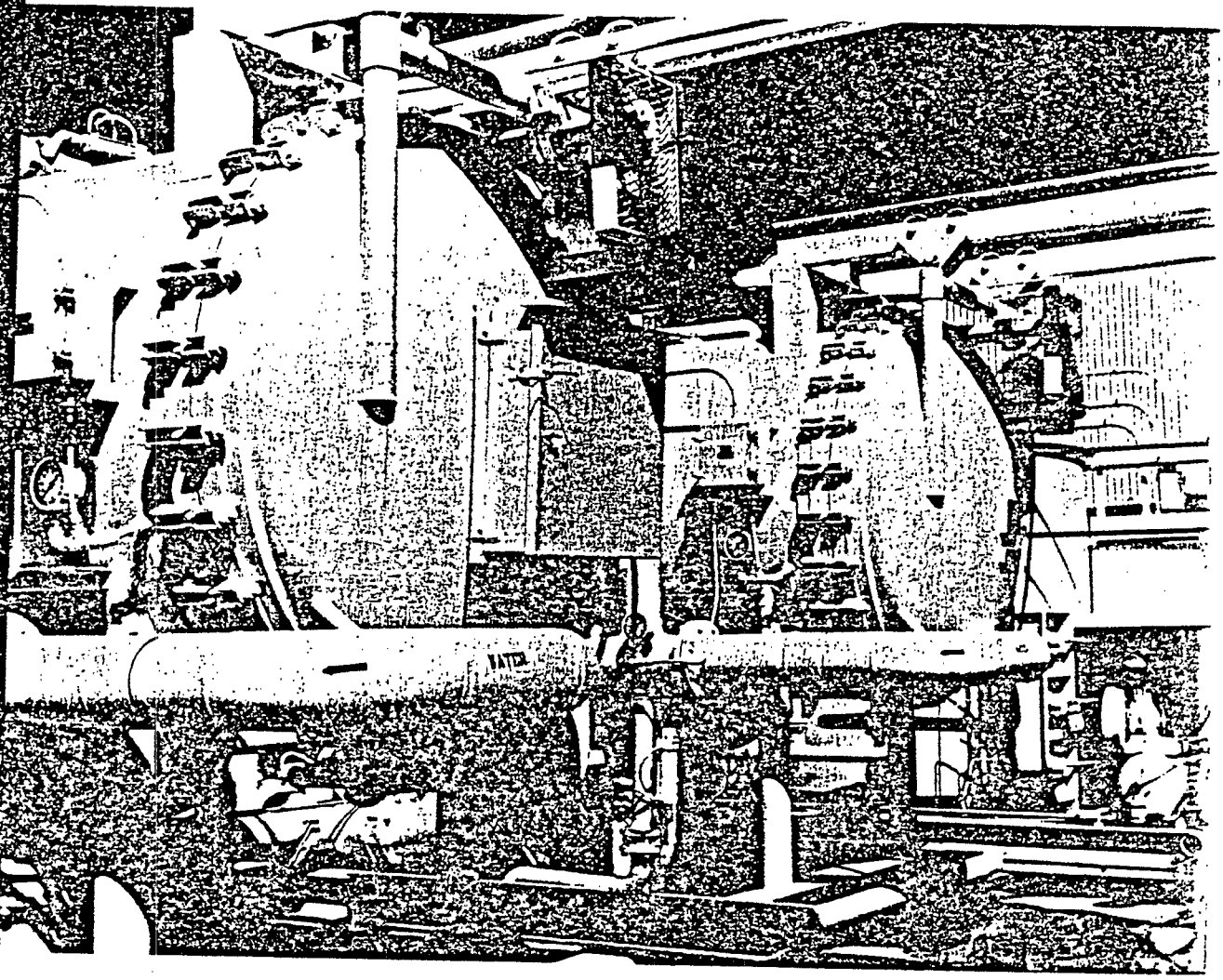
100 200 300 400 500 600 700 800

INDUSTRIAL FILTER & PUMP MFG. CO.
5900 OGDEN AVENUE, CICERO, ILLINOIS 60650

BULLETIN

122

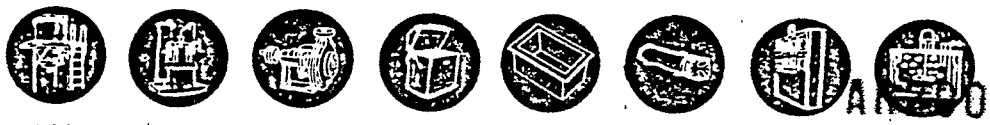
INDUSTRIAL



HORIZONTAL PRESSURE FILTERS

INDUSTRIAL's 122 design is a highly versatile "work horse". Filter leaves are interchangeable and are individually removable. Experienced selection by our Sales Engineers from a tremendous program of options insures equipment tailored to your process.

INDUSTRIAL®



100 200 300 400 500 600 700 800

INDUSTRIAL FILTER & PUMP MFG. CO.
5900 OGDEN AVENUE, CICERO, ILLINOIS 60650

AR200873

SPECTRUM CONTROL INC.

SAEGERTOWN BOROUGH, CRAWFORD COUNTY

EROSION AND SEDIMENTATION CONTROL PLAN: N/A

The entire treatment system will be installed inside the existing manufacturing plant and therefore no soil movement will be involved in this project.

SPECTRUM CONTROL INC.

SAEGERTOWN BOROUGH, CRAWFORD COUNTY

POLLUTION INCIDENT PREVENTION PLAN

General: Spectrum Control Inc. conducts their plating operation in one room in the Saegertown plant. All chemicals are either stored within this room or in a metal outbuilding close to the plant. There is no history of pollutional incidents at the plant.

Plant Operation: Chemicals are received in 55 gallon drums or smaller containers and are placed within the plating room or metal outbuilding for storage. Inventory is kept only for regular needs, and no large stockpiles are kept at the plant. There are no floor drains in the plating room, and there are only two entry-ways out of which floor spillage could leave the building. A raised retaining ridge will be placed across the two doorway ramps to provide positive containment in case a spill would occur inside the room. Only dry, non-acid chemicals, such as potassium cyanide and oakite cleaner, are stored in the metal outbuilding. The building has a wood floor without drains and is raised 8-inches above ground level. The building is kept locked.

Breakdown Procedures: Certain portions of the treatment system can be carried out during breakdowns, depending on the part of the system that is down. The cyanide batch treatment can be performed

by the manual addition of NaOH and NaClO with the operator paying strict attention to the pH and ORP meters. The neutralization provided by the Finalizer and the solids removal provided by the filter, however, are dependent upon the proper working condition of these units. If either the Finalizer or the filter are out of order, the plating lines will be stopped.

Maintenance and Inspection: Maintenance and inspection of the pumps and treatment units will be conducted in accordance with the manufacturers' recommended schedule. The entire system will be inspected at least once per week for any apparent weaknesses in plumbing, tankage, or working equipment.

Personnel Training: Due to the close tolerance and high standards required for the finished product, only trained personnel operate in the plating room. Their training will include the proper operation, maintenance, and inspection of the treatment system, as well as their being apprised of the hazards of accidental spills from all possible sources, the importance of preventative measures, and the procedures for notifying supervisory personnel of accidents. The training will also include how to contain a spill and how to collect and treat it, labeling and instruction on the proper arrangements of valves and switching, and the problems that could occur as a result of improper piping installation, and inadequate inspection and maintenance procedures. The two cyanide batch tank discharge valves will be clearly marked with a warning to "keep

closed until treatment is complete" and the "open" and "closed" positions will be clearly marked. Training will include the simulation of pollution incidents and contingency plan procedures. The employees in the other areas of the plant will receive basic training in the hazards of accidental spills, the importance of preventative measures and who to notify in case an accident occurs.

Communications and Chain of Command: All plant personnel will be encouraged to present a list of possible pollutional incidents, and a contingency plan for dealing with the most probable types will be developed. If an incident occurs, the Plant Foreman will be notified. He will be responsible for the treatment system and will have received the full training program. The Foreman will notify the Manufacturing Manager and the Chief Engineer.

Notification of Pollution Incidents: Upon the occurrence of a pollution incident, the Chief Engineer will promptly notify the Regional Sanitary Engineer of the Pennsylvania Department of Environmental Resources, Meadville Office, Telephone 724-8550. If the Chief Engineer is absent, the Manufacturing Manager will assume this responsibility.

External Factors: External factors should not cause a pollution incident at the plant. If an electrical outage occurs, the plating line will be stopped and all water turned off. Since the treat-

ment plant discharge is by pump through the filter, the discharge will stop whenever the electrical pump stops. The entire system is inside the plant and storage is inside the plant or the locked metal building, and therefore they should be safe from ordinary vandal or strike damage. The plant and the metal building are above flood level.

Pollution Incident History: There have been no pollution incidents at the plant.

Clean-up Services and Equipment: Spectrum Control will be equipped with neutralizing and treatment chemicals and should be able to contain and clean up any spills or leaks with their own personnel. When notifying the Regional Sanitary Engineer of the Pennsylvania Department of Environmental Resources, they will request his assistance and recommendations if needed.

Spectrum Control Inc.
Saegertown Borough, Crawford County
Pollution Incident Prevention Plan
November 28, 1979

Revised Notification Procedure: Upon the occurrence of a pollution incident, the Chief Engineer will promptly notify the Regional Sanitary Engineer of the Pennsylvania Department of Environmental Resources, Meadville Office, Telephone 724-8550; the Pennsylvania Fish Commission Waterways Patrolman Warren Beaver 683-4121 or William Mantzell 789-2055; and the U.S. Environmental Protection Agency 800-424-8802.

Richard A. Deiss, P. E.
Richard A. Deiss & Associates
Consulting Engineers
Meadville, Pennsylvania

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
1012 Water Street
Meadville, Pennsylvania 16335
Telephone: A.C. 814/724-8550

SEP 14 1981

Subject: NPDES Permit #PA 0100307
Spectrum Control Incorporated
Saegertown, Crawford County

Mr. Jack Baker
Vice-President Engineering
Spectrum Control Incorporated
600 Erie Street
Seagertown, Pennsylvania 16433

Dear Mr. Baker:

Receipt of your application for the renewal of your NPDES permit is hereby acknowledged.

Because of staff limitation, there will be some delay in processing the application. However, we will make every effort to process it as soon as possible.

The regulations regarding NPDES permits have been amended and now stipulate that the terms and conditions of an expired permit are automatically continued pending issuance of a new permit. Therefore, if your permit has expired or expires prior to reissuance, you are required to comply with the provisions of your present permit.

Your cooperation is appreciated.

Sincerely,

David E. Milhous

David E. Milhous, P.E., Chief
Permits and Grants Section
Bureau of Water Quality Management

DEM/csw

AR200880

SPECTRUM CONTROL INC. 600 ERIE ST. • SAEGERTOWN, PENNSYLVANIA 16433 ☎ 814/763-3211
MATERIAL SCIENCES DIVISION

November 19, 1981

Department of Environmental Resources
Bureau of Water Quality Management
1012 Water Street
Meadville, PA 16335

Attention: David E. Milhous, Chief, Facilities Section

Subject: Revisions to application for renewal of NPDES Permit #0100307, submitted 9/9/81

Dear Mr. Milhous:

Enclosed are triplicate copies of page 3 and page V-2 of Form 2C which contain additional information from our original submission.

Also, triplicate copies of radioactivity analytical report and analytical report on uranium and strontium are enclosed.

Please replace the original pages with these corrected or additional data copies.

Very truly yours,
SPECTRUM CONTROL, INC.

Jack Baker

Jack Baker
V.P. Engineering

AR200881

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-8.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

Outfall 001 only

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Strontium Uranium Zirconium	Rinse water from ceramic etching process		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. Is any pollutant listed in Item V-C a substance or a component of a substance which you do or expect that you will over the next 5 years use or manufacture as an intermediate or final product or byproduct?

☒ YES *(list all such pollutants below)* ☐ NO *(go to Item VI-B)*

Cadmium
Copper
Nickel
Silver
Cyanide

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharges of pollutants may during the next 5 years exceed two times the maximum values reported in Item V?

☒ YES *(complete Item VI-C below)* ☐ NO *(go to Section VII)*

C. If you answered "Yes" to Item VI-B, explain below and describe in detail the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years, to the best of your ability at this time. Continue on additional sheets if you need more space.

VI.C - Outfall 001: We put our plating rinse water treatment system into operation in mid-May 1981. The system was designed to treat rinse water from two plating lines; 1-ceramic capacitor; 2-copper shells and terminals. Until we have experience in operating the equipment, we have limited our production to the ceramic capacitor plating line and therefore our flow is only a fraction of our permitted flow. We have reported representative actual usage to date. Data in Item V.

As we gain experience in operating our treatment system, we intend to increase our flow volume and our pollutant mass will naturally increase although concentration should not increase. We fully expect to be within our original permit limits of flow, mass and concentration for the next 5 years but it will a period of time to get our system at full production capacity.

(see attached sheet)

AR200882

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
Nitrogen, Total Organic (as N)		X	2.2	5.0						ppm	gm			
Oil and Grease	X		0.5	1.0						ppm	gm			
Phosphorus (as P), Total (7723-14-0)		X	<0.01	< .02						ppm	gm			
Radioactivity														
Alpha, Total		X	<9	<.02						pCi/L	µ Ci			
Beta, Total		X	30 ± 3	.068						pCi/L	µ Ci			
Radium, Total		X	<30	<.06						pCi/L	µ Ci			
Radium, Total		X	1.4 ± .11	.0032						pCi/L	µ Ci			
Sulfate (as SO_4) (14808-79-8)	X		500.0	1135.0						ppm	gm			
Sulfide (as S)		X	0.4	.9						ppm	gm			
Sulfite (as SO_3) (14265-45-3)		X	0.5	11.4						ppm	gm			
Surfactants		X	<0.2	<.4						ppm	gm			
Aluminum, Total (7429-90-5)		X	<0.2	<.4						ppm	gm			
Barium, Total (7440-39-3)	X		0.14	.32				J		ppm	gm			
Boron, Total (7440-)	X		5.48	12.45				J		ppm	gm			
Cobalt, Total (7440-48-4)		X	0.04	.09				J		ppm	gm			
Iron, Total (7439-89-6)		X	0.10	.23				J		ppm	gm			
Magnesium, Total (7439-95-4)		X	21.8	49.5				J		ppm	gm			
Molybdenum, Total (7439-98-7)		X	<0.20	<.45						ppm	gm			
Manganese, Total (7439-96-5)		X	<0.05	<.11						ppm	gm			
Tin, Total (7440-31-5)		X	<1.0	<2.3						ppm	gm			
Titanium, Total (7440-32-6)		X	<1.0	<2.3					J	ppm	gm			J

AR200883

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

J. Richard Wohler, Ph.D.
Laboratory Director

Karen C. Eglinton
Laboratory Manager

To: Mr. Jack Baker
Spectrum Control
600 Erie Street
Saegertown, PA 16433

Date Sample(s) Received: 8/5/81/32

ANALYTICAL REPORT FORM

Parameter	Sample
Alpha pCi/L	<9
Beta pCi/L	30 ± 3
Total Radium	
RA-223 pCi/L	<30
Ra-228 pCi/L	<9
Total 226 Radium pCi/L	1.4 ± .11

Robert V. Tagliere
ADMINISTRATIVE ASSISTANT

10/6/81

/dt

AR200884

A.I.H.A. Accreditation No. 98
HEW / CLIA Lic. No. 37-1129

PA. Department of Health
Clinical Laboratory Permit No. 561
EPA Facility No. 38-073

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Jack Baker
Spectrum Control
600 Erie Street
Saegertown, PA 16433

Date Sample(s) Received: 10/20/81/32

P.O.#: 23939

ANALYTICAL REPORT FORM

Parameter	Sample
Copper mg/L	0.16
Nickel mg/L	3.17
Silver mg/L	0.06
Tin mg/L	<1.0
Iron mg/L	0.18
Barium mg/L	0.06
Free Cyanide mg/L	<0.006
Total Cyanide mg/L	0.012
Oil & Grease mg/L	10
Suspended Solids mg/L	<0.1
Fluoride mg/L	7.40
Uranium mg/L	<0.25
Strontium mg/L	0.45

Robert K. Eglinton
ADMINISTRATIVE ASSISTANT

11/5/81

/mh

AR200885

SPECTRUM CONTROL INC. 600 ERIE ST. • SAEGERTOWN, PENNSYLVANIA 16433 814/763-32
MATERIAL SCIENCES DIVISION

September 9, 1981

Department of Environmental Resources
Bureau of Water Quality Management
1012 Water Street
Meadville, Pennsylvania 16335

Attn: David E. Milhous, Chief Facilities Section

Dear Mr. Milhous:

Enclosed are the triplicate copies of Standard Form I and Form 2C, and a filing fee check of $500.00 for renewal of our NPDES permit.

I would like to point out that we have operated our plating rinse water treatment system for only a short time (since mid-May 1981). The flows and mass reported on the forms represent very limited production as we are gaining experience in operating the equipment. We expect to get to the production flows as limited in our original permit and therefore we would like to retain the original permit discharge limitations.

Also, we are not adding any materials to our non-contact cooling water.

Sincerely yours,
SPECTRUM CONTROL, INC.

Jack Baker

Jack Baker
V.P. Engineering

AR200886

SPECTRUM CONTROL

SPECTRUM CONTROL INC.

8061 Avonia Road • Fairview, Pennsylvania 16415 ☎ 814/474-1571

9167

60-73
433

VOUCHER NO. _____ ERIE, PENNA. DATE Sept. 10, 1981 CHECK NO. 14881

PAY SPECTRUM CONTROLLING $500and00cts DOLLARS $ 500.00

TO THE ORDER OF Commonwealth of Penna

SPECTRUM CONTROL INC.

THE MARINE NATIONAL BANK OF ERIE
ERIE, PENNSYLVANIA

:043007381: 0993-3945"

AR2008087

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 charac· ·/inch).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

EPA I.D. NUMBER: F PAD065614430 D

LABEL ITEMS

I. EPA I.D. NUMBER

II. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)				B. Does or will this facility *(either existing or proposed)* include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)			
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)				D. Is this a proposed facility *(other than those described in A or B above)* which will result in a discharge to waters of the U.S.? (FORM 2D)			
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)				F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)				H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)				J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			

III. NAME OF FACILITY

1 SKIP: SPECTRUM CONTROL INC

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 JACK BAKER V. P. ENGINEERING	814 763 3211

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX: 3 600 ERIE ST

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 SAEGERTOWN,	PA	16433

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 5 600 ERIE ST

B. COUNTY NAME: AWFORD

AR200888

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 SAEGERTOWN	PA	16433	

CONTINUED FROM THE FRONT

II. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
3679 (specify) Mfg. electronic components	3471 (specify) electroplating
C. THIRD	**D. FOURTH**
(specify)	(specify)

III. OPERATOR INFORMATION

A. NAME: SPECTRUM CONTROL INC

B. Same name listed in Item VIII-A also the owner? ☐ YES ☐ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL, S = STATE, P = PRIVATE, M = PUBLIC (other than federal or state), O = OTHER (specify)
P (specify)

D. PHONE (area code & no.): A 814 763 3211

E. STREET OR P.O. BOX: 500 ERIE ST

F. CITY OR TOWN: SAEGER TOWN

G. STATE: PA

H. ZIP CODE: 16433

IX. INDIAN LAND
Is the facility located on Indian lands? ☐ YES ☒ NO

IV. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
N 0100307	9P
B. UIC (Underground Injection of Fluids)	**E. OTHER (specify)**
U	9 (specify)
C. RCRA (Hazardous Wastes)	**E. OTHER (specify)**
R	9 (specify)

V. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

VI. NATURE OF BUSINESS (provide a brief description)

Manufacture ceramic capacitors; electroplate silver, nickel and tin electronic components.

VII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Jack Baker, V.P.Engineering	Jack Baker	9/9/81

COMMENTS FOR OFFICIAL USE ONLY

EPA Form 3510-1 (6-80) REVERSE

(16)

☆ U.S. GOVERNMENT PRINTING OFFICE: 1980—323-829:6355

Margaret L. McMaster, Notary Public

AR200889

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1) PAD065614430

Form Approved OMB No. 158-R0173

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER

EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE 1. DEG.	2. MIN.	3. SEC.	C. LONGITUDE 1. DEG.	2. MIN.	3. SEC.	D. RECEIVING WATER (name)
001	41	42	45	80	08	46	FRENCH CREEK VIA STORM SEWER
002	41	42	45	80	08	46	FRENCH CREEK VIA STORM SEWER

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO (list)	2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (list)	b. AVERAGE FLOW (include units)	3. TREATMENT a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	ELECTROPLATING RINSE	10,000 GPD	CYANIDE OXIDATION	2-B	
			HEAVY METAL PRECIP.	2-C	
			FILTRATION	1-C	1-Q
002	NON CONTACT COOLING	7,200 GPD	NONE	N/A	

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OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

ONTINUED FROM THE FRONT

. Except for storm runoff, leaks, or spills, are any of th. ..charges described in Items II-A or B intermittent or seasonal?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY a. DAYS PER WEEK *(specify average)*	3. FREQUENCY b. MONTHS PER YEAR *(specify average)*	4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME *(specify with units)* 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME *(specify with units)* 2. MAXIMUM DAILY	4. FLOW c. DURATION *(in days)*

MAXIMUM PRODUCTION

Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES *(complete Item III-B)* ☐ NO *(to to Section IV)*

Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☒ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

If you answered "Yes" to Item III-B, list the quantity which represents an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. MAXIMUM QUANTITY a. QUANTITY PER DAY	1. MAXIMUM QUANTITY b. UNITS OF MEASURE	1. MAXIMUM QUANTITY c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	2. AFFECTED OUTFALLS *(list outfall numbers)*
170	ft^2	Electroplating nickel and silver	001
0,000	pc	Air compressor for ceramic capacitor manufacturing	002

PROVEMENTS

. you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of waste-er treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant oan conditions.

☐ YES *(complete the following table)* ☒ NO *(go to Item IV-B)*

TIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED

AR20089

ONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or ed schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (copy from Item 1 of Form 1)
D065614430

Form Approved OMB No. 158-R0173

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. Is any pollutant listed in Item V-C a substance or a component of a substance which you do or expect that you will over the next 5 years use or manufacture as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☒ NO *(go to Item VI-B)*

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharges of pollutants may during the next 5 years exceed two times the maximum values reported in Item V?

☒ YES *(complete Item VI-C below)* ☐ NO *(go to Section VII)*

C. If you answered "Yes" to Item VI-B, explain below and describe in detail the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years, to the best of your ability at this time. Continue on additional sheets if you need more space.

VI.C - Outfall 001: We put our plating rinse water treatment system into operation in mid-May 1981. The system was designed to treat rinse water from two plating lines; 1-ceramic capacitor; 2-copper shells and terminals. Until we have experience in operating the equipment, we have limited our production to the ceramic capacitor plating line and therefore our flow is only a fraction of our permitted flow. We have reported representative actual usage to date. Data in Item V.

As we gain experience in operating our treatment system, we intend to increase our flow volume and our pollutant mass will naturally increase although concentration should not increase. We fully expect to be within our original permit limits of flow, mass and concentration for the next 5 years but it will a period of time to get our system at full production capacity.

(see attached sheet)

AR200892

BIOLOGICAL TOXICITY TESTING DATA

you have any knowledge or reason to believe that any .ogical test for acute or chronic toxicity has been ma.. on any of your discharges or on a eiving water in relation to your discharge within the last 3 years?

☐ YES *(identify the test(s) and describe their purposes below)* ☒ NO *(go to Section VIII)*

NTRACT ANALYSIS INFORMATION

any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
ee Col Laboratories	P.O. Box 557 Cotton Road Meadville,PA 16335	(814) 724-6242	

TIFICATION

y under penalty of law that I have personally examined and am familiar with the information submitted in this application and all ments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the in- ion is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the lity of fine and imprisonment.

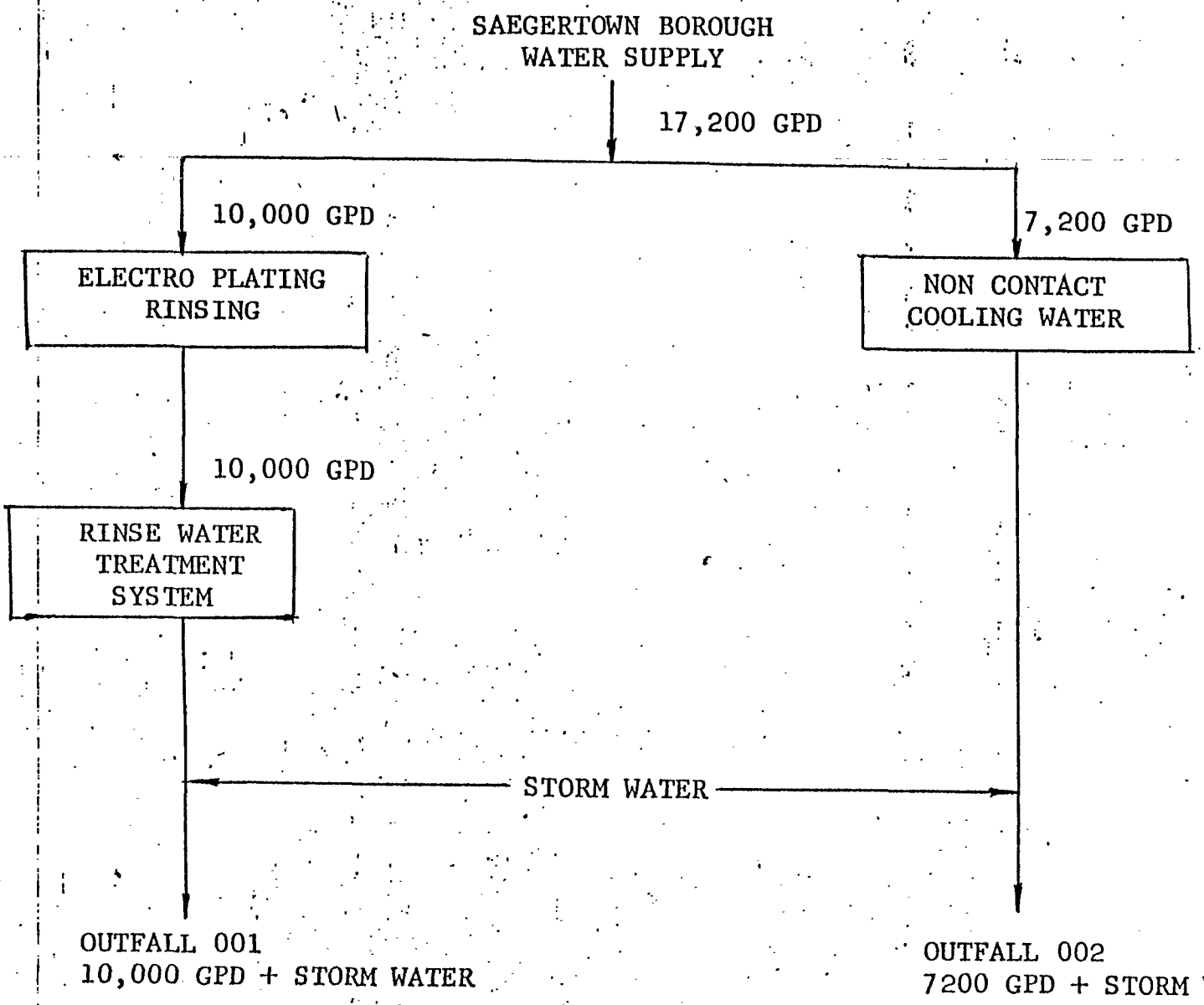
AR200893

ME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
ack Baker, V.P. Engineering	(814) 763-3211
NATURE Jack Baker	D. DATE SIGNED 9/9/81

VI. C - Outfall 002: We expect Outfall 002 to increase to about 3 times the flow reported in Item V, due to growth.

Our current permit allows for 4 times the current reported flow.

SPECTRUM CONTROL INC



SPECTRUM CONTROL INC.

AR200895

.EASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of is information on separate sheets *(use the same format)* instead of completing these pages.
E INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
PAD065614430

Form Approved OMB No. 158-R0173

AR200896

OUTFALL NO. 001

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT: a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. a. (2) MASS	4. b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	<1		<2.3				1	mg/1	gm			
b. Chemical Oxygen Demand (COD)	36. 0		82.0				1	mg/1	gm			
c. Total Organic Carbon (TOC)	13.2		30.0				1	mg/1	gm			
d. Total Suspended Solids (TSS)	12.2		27.7				1	mg/1	gm			
e. Ammonia *(as N)*	2.8		6.4				1	mg/1	gm			
f. Flow	VALUE 600		VALUE		VALUE			gallon		VALUE		
g. Temperature *(winter)*	VALUE Not available		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE 28		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM 7.9	MAXIMUM 8.3	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. b. BELIEVED ABSENT	3. EFFLUENT: a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. a. (2) MASS	5. b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual	X		<.1	<.2						ppm	gm			
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)	X		8.3	18.8						ppm	gm			
f. Nitrate—Nitrite *(as N)*			9.8	22.2						ppm	gm			

1. POLLUTANT AND CAS NO. (If available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. [illegible]	b. [illegible] PRESENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (If available) (2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (If available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)		X	2.2	5.0						ppm	gm			
h. Oil and Grease	X		0.5	1.0						ppm	gm			
i. Phosphorus (as P), Total (7723-14-0)		X	<0.01	< .02						ppm	gm			
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
[illegible]adium 2[illegible], Total		X												
k. Sulfate (as SO_4) (14808 79-8)	X		500.0	1135.0						ppm	gm			
l. Sulfide (as S)		X	0.4	.9						ppm	gm			
m. Sulfite (as SO_3) (14265-45-3)		X	0.5	11.4						ppm	gm			
n. Surfactants		X	<0.2	<.4						ppm	gm			
o. Aluminum, Total (7429-90-5)		X	<0.2	<.4						ppm	gm			
p. Barium, Total (7440-39-3)	X		0.14	.32						ppm	gm			
q. Boron, Total (7440-42-8)	X		5.48	12.45						ppm	gm			
r. Cobalt, To[illegible] (7[illegible]48-4)		X	0.04	.09						ppm	gm			
s. Iron, Total (7439-89-6)		X	0.10	.23						ppm	gm			
t. Magnesium, Total (7439-95-4)		X	21.8	49.5						ppm	gm			
u. Molybdenum, Total (7439-98-7)		X	<0.20	<.45						ppm	gm			
v. Manganese, Total (7439-96-5)		X	<0.05	<.11						ppm	gm			
w. Tin, Total (7440-31-5)		X	<1.0	<2.3						ppm	gm			
x. Titanium, Total (7440-32-6)		X	<1.0	<2.3						ppm	gm			

AR200897

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
PAD065614430	001

CONTINUED FROM PAGE 3 OF FORM 2-C

Form Approved OMB No. 158-R0173

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, non-process wastewater outfalls, and non-required GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table *(all seven pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
M. Antimony, Total (7440-36-0)	X			<0.20	<0.45						ppm	gm			
M. Arsenic, Total (7440-38-2)	X			0.022	.050						ppm	gm			
M. Beryllium, Total, (7440-41-7)	X			<0.01	<0.02						ppm	gm			
M. Cadmium, Total (7440-43 9)	X			<0.01	<0.02						ppm	gm			
M. Chromium, Total (7440-47-3)	X			<0.05	<0.11						ppm	gm			
M. Copper, Total (7550 50-8)	X			<0.05	<0.11						ppm	gm			
M. Lead, Total (7439-97-6)	X			<0.1	<0.2						ppm	gm			
M. Mercury, Total (7439-97-6)	X			<0.0001	<0.0002						ppm	gm			
M. Nickel, Total (744[illegible]-0)	X			6.4	14.5						ppm	gm			
M. Selenium, Total (7782-49-2)	X			0.05	0.11						ppm	gm			
M. Silver, Total (7440-22-4)	X			0.13	0.30						ppm	gm			
M. Thallium, Total (7440-28-0)	X			<0.50	<1.1						ppm	gm			
M. Zinc, Total (7440-66-6)	X			0.02	0.05						ppm	gm			
M. Cyanide, Total (57-12-5)	X			0.26	0.59						ppm	gm			
M. Phenols, Total	X			<0.01	<0.02						ppm	gm			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

EPA Form 3510-2C (8-90) PAGE 3 CONTINUE REVERSE

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. BELIEVED PRESENT	b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS														
1V. Acrolein (107-02-8)	X		<0.100	<.227						mg/1	gm			
2V. Acrylonitrile (107-13-1)	X		<0.100	<.227						mg/1	gm			
3V. Benzene (71-43-2)	X		<0.010	<.023						mg/1	gm			
4V. Bis (Chloromethyl) Ether (542-88-1)	X		<0.010	<.023						mg/1	gm			
5V. Bromoform (75-25-2)	X		<0.010	<.023						mg/1	gm			
6V. Carbon Tetrachloride (56-23-5)	X		<0.010	<.023						mg/1	gm			
7V. Chlorobenzene (108-90-7)	X		<0.010	<.023						mg/1	gm			
8V. Chlorodibromomethane (124-48-1)	X		<0.010	<.023						mg/1	gm			
9V. Chloroethane (75-00-3)	X		<0.010	<.023						mg/1	gm			
10V. 2-Chloroethylvinyl Ether (110-75-8)	X		<0.010	<.023						mg/1	gm			
11V. Chloroform (67-66-3)	X		<0.010	<.023						mg/1	gm			
12V. Dichlorobromomethane (75-27-4)	X		<0.010	<.023						mg/1	gm			
13V. Dichlorodifluoromethane (75-71-8)	X		<0.010	<.023						mg/1	gm			
14V. 1,1-Dichloroethane (75-34-3)	X		<0.010	<.023						mg/1	gm			
15V. 1,2-Dichloroethane (107-06-2)	X		<0.010	<.023						mg/1	gm			
16V. 1,1-Dichloroethylene (75-35-4)	X		<0.010	<.023						mg/1	gm			
17V. 1,2-Dichloropropane (78-87-5)	X		<0.010	<.023						mg/1	gm			
18V. 1,2-Dichloropropylene (542 75 6)	X		<0.010	<.023						mg/1	gm			
19V. Ethylbenzene (100-41-4)	X		<0.010	<.023						mg/1	gm			
20V. Methyl Bromide (74-83-9)	X		<0.010	<.023						mg/1	gm			
21V. Methyl Chloride (74-87-3)	X									mg/1	gm			

AR2008 99

EPA I.D. NUMBER (copy from Item 1 of Form 1): PAD065614430 | OUTFALL NUMBER: 001

Form Approved OMB No. 158-R0173

POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
C/MS FRACTION – VOLATILE COMPOUNDS (continued)															
V. Methylene loride (75-09-2)	X			<0.010	<.023						mg/1	gm			
V. 1,1,2,2-Tetra-loroethane 3-34-5)	X			<0.010	<.023						mg/1	gm			
V. Tetrachloro-ylene (127-18-4)	X			<0.010	<.023						mg/1	gm			
V. Toluene 08-88-3)	X			<0.010	<.023						mg/1	gm			
V. 1,2-Trans-chloroethylene 56-60-5)	X			<0.010	<.023						mg/1	gm			
V. 1 Tri-loroe a 1-55-6)	X			<0.010	<.023						mg/1	gm			
V. 1,1,2-Tri-loroethane 3-00-5)	X			<0.010	<.023						mg/1	gm			
V. Trichloro-ylene (79-01-6)	X			<0.010	<.023						mg/1	gm			
V. Trichloro-oromethane 5-69-4)	X			<0.010	<.023						mg/1	gm			
V. Vinyl loride (75-01-4)	X			<0.010	<.023						mg/1	gm			
C/MS FRACTION – ACID COMPOUNDS															
A. 2-Chlorophenol 5-57-8)	X			<0.025	<.057						mg/1	gm			
A. 2,4-Dichloro-henol (120-83-2)	X			<0.025	<.057						mg/1	gm			
A. 2,4-Dimethyl-henol (105-67-9)	X			<0.025	<.057						mg/1	gm			
A. 4, itro-O-resol (534-52-1)	X			<0.250	<.568						mg/1	gm			
A. 2,4-Dinitro-henol (51-28-5)	X			<0.250	<.568						mg/1	gm			
A. 2-Nitrophenol 8-75-5)	X			<0.025	<.057						mg/1	gm			
A. 4-Nitrophenol 00-02-7)	X			<0.026	.059						mg/1	gm			
A. P-Chloro-M-resol (59-50-7)	X			<0.025	<.057						mg/1	gm			
A. Pentachloro-henol (87-86-5)	X			<0.025	<.057						mg/1	gm			
0A. Phenol 08-95-2)	X			<0.025	<.057						mg/1	gm			
1A. 2,4,6-Tri-hlorophenol 88-06-2)	X			<0.025	<.057						mg/1	gm			

AR200900

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK 'X' A. REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			<0.010	<.023						mg/1	gm			
2B. Acenaphtylene (208-96-8)	X			<0.010	<.023						mg/1	gm			
3B. Anthracene (120-12-7)	X			<0.010	<.023						mg/1	gm			
4B. Benzidine (92-87-5)	X			<0.010	<.023						mg/1	gm			
5B. Benzo (a) Anthracene (56-55-3)	X			<0.010	<.023						mg/1	gm			
6B. Benzo (a) Pyrene (50-32-8)	X			<0.010	<.023						mg/1	gm			
7B. Benzo-fluoranthene (205 99-2)	X			<0.010	<.023						mg/1	gm			
8B. Benzo (ghi) Perylene (191-24-2)	X			<0.025	<.057						mg/1	gm			
9B. Benzo (k) Fluoranthene (207-08-9)	X			<0.010	<.023						mg/1	gm			
10B. Bis (2-Chloro-ethoxy) Methane (111-91-1)	X			<0.010	<.023						mg/1	gm			
11B. Bis (2-Chloro-ethyl) Ether (111-44-4)	X			<0.010	<.023						mg/1	gm			
12B. Bis (2-Chloro-isopropyl) Ether (39638-32-9)	X			<0.010	<.023						mg/1	gm			
13B. Bis (2-Ethyl-hexyl) Phthalate (117-81-7)	X			<0.010	<.023						mg/1	gm			
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)	X			<0.010	<.023						mg/1	gm			
15B. Butyl Benzyl Phthalate (85-68-7)	X			<0.010	<.023						mg/1	gm			
16B. 2-Chloro-naphthalene (91-58-7)	X			<0.010	<.023						mg/1	gm			
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			<0.010	<.023						mg/1	gm			
18B. Chrysene (218-01-9)	X			<0.010	<.023						mg/1	gm			
19B. Dibenzo (a,h) Anthracene (53-70-3)	X			<0.025	<.057						mg/1	gm			
20B. 1,2 Dichloro-benzene (95-50-1)	X			<0.010	<.023						mg/1	gm			
21B. 1,3-Dichloro-benzene (541-73-1)	X			<0.010	<.023						mg/1	gm			

AR2090

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
PAD065614430	001

Form Approved OMB No. 158-R0173

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTED INCLUDED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			<0.010	<.023						mg/1	gm			
23B. 3,3'-Dichlorobenzidine (91-94-1)	X			<0.010	<.023						mg/1	gm			
24B. Diethyl Phthalate (84-66-2)	X			<0.010	<.023						mg/1	gm			
25B. Dimethyl Phthalate (131-11-3)	X			<0.010	<.023						mg/1	gm			
26B. Di-N-Butyl Phtl (84-[illegible]	X			<0.010	<.023						mg/1	gm			
27B. 2,4-Dinitrotoluene (121-14-2)	X			<0.010	<.023						mg/1	gm			
28B. 2,6-Dinitrotoluene (606-20-2)	X			<0.010	<.023						mg/1	gm			
29B. Di-N-Octyl Phthalate (117-84-0)	X			<0.010	<.023						mg/1	gm			
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			<0.010	<.023						mg/1	gm			
31B. Fluoranthene (206-44-0)	X			<0.010	<.023						mg/1	gm			
32B. Fluorene (86-73-7)	X			<0.010	<.023						mg/1	gm			
33B. Hexachlorobenzene (118-71-1)	X			<0.010	<.023						mg/1	gm			
34B. Hexachlo[illegible]utadiene (87[illegible])	X			<0.010	<.023						mg/1	gm			
35B. Hexachlorocyclopentadiene (77-47-4)	X			<0.010	<.023						mg/1	gm			
36B. Hexachloroethane (67-72-1)	X			<0.010	<.023						mg/1	gm			
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			<0.010	<.023						mg/1	gm			
38B. Isophorone (78-59-1)	X			<0.010 J	<.023 J						mg/1	gm			
39B. Naphthalene (91-20-3)	X			<0.010 J	<.023 J						mg/1	gm			
40B. Nitrobenzene (98-95-3)	X			<0.010 J	<.023 J						mg/1	gm			
41B. N-Nitrosodimethylamine (62-75-9)	X			<0.025 J	<.057 J						mg/1	gm			
42B. N-Nitrosodi-N-Propylamine (621-64-7)	[redacted]			<0.010	<.023						mg/1	gm			

CONTINUE ON REVERSE

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. [illegible]	b. [illegible]	c. [illegible]	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)	X			<0.010	<.023						mg/1	gm			
44B. Phenanthrene (85-01-8)	X			<0.010	<.023						mg/1	gm			
45B. Pyrene (129-00-0)	X			<0.010	<.023						mg/1	gm			
46B. 1,2,4-Trichlorobenzene (120-82-1)	X			<0.010	<.023						mg/1	gm			
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

R20903

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
PAD065614430	'001

Form Approved OMB No. 158-R0173

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB 1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Mr. Jack Baker
Spectrum Control
600 Erie Street
Saegertown, PA 16433

Date Sample(s) Received: 8/5/81/32
Re: 001 8/4/81 Composite
P.O. #25119

ANALYTICAL REPORT FORM

Parameter	Sample
$B.O.D._5$ mg/L	<1
C.O.D. mg/L	36
T.O.C. mg/L	13.2
Total Suspended Solids mg/L	12.2
Ammonia Nitrogen mg/L	2.8
Chlorine	Tested on Site
Fluoride mg/L	8.3
Nitrite Nitrogen mg/L	<0.02
Nitrate Nitrogen mg/L	9.8
Total Organic Nitrogen mg/L	2.2
Phosphorus mg/L	<0.01
Sulfate mg/L	500
Sulfide mg/L	0.4
Sulfite mg/L	0.5
Surfactants mg/L	<0.2
Total Aluminum mg/L	<0.20
Total Barium mg/L	0.14
Total Boron mg/L	5.48
Total Cobalt mg/L	0.04
Total Iron mg/L	0.10

AR200905

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Spectrum Control

Date Sample(s) Received: 8/5/81/32

Re: 001 8/4/81 Composite

ANALYTICAL REPORT FORM

Parameter	Sample
Total Magnesium mg/L	21.8
Total Molybdenum mg/L	<0.20
Total Manganese mg/L	<0.05
Total Tin mg/L	< 1.0
Total Titanium mg/L	< 1.0
Total Antimony mg/L	< 0.20
Total Arsenic mg/L	0.022
Total Beryllium mg/L	< 0.01
Total Cadmium mg/L	< 0.01
Total Chromium mg/L	< 0.05
Total Copper mg/L	< 0.05
Total Lead mg/L	< 0.1
Total Mercury mg/L	0.0001
Total Nickel mg/L	6.4
Total Selenium mg/L	0.05
Total Silver mg/L	0.13
Total Thallium mg/L	<0.50
Total Zinc mg/L	0.02

AR200906

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Mr. Jack Baker
Spectrum Control
600 Erie Street
Saegertown, PA 16433

Date Sample(s) Received: 8/5/81/33-36

Re: 001 Taken 8/4/81

ANALYTICAL REPORT FORM

Units in mg/L

Sample	Cyanide	Oil & Grease	Phenol
8:00 AM	0.34	<0.1	<0.01
10:00 AM	0.27	<0.1	<0.01
12:15 PM	0.23	<0.1	<0.01
2:15 PM	0.19	1.5	<0.01

Robert V. Taylor
ADMINISTRATIVE ASSISTANT

AR200907

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Spectrum Control

Date Sample(s) Received: 8/5/81/32

Re: 001 Composite

ANALYTICAL REPORT FORM

Units in mg/L

Volatile Compounds	Sample
Acrolein	<0.100
Acrylonitrile	<0.100
Benzene	<0.010
Bis (Chloromethyl) Ether	<0.010
Bromoform	<0.010
Carbon Tetrachloride	<0.010
Chlorobenzene	<0.010
Chlorodibromomethane	<0.010
Chloroethane	<0.010
2-Chloroethylvinyl Ether	<0.010
Chloroform	<0.010
Dichlorobromomethane	<0.010
Dichlorodifluoromethane	<0.010
1,1-Dichloroethane	<0.010
1,2-Dichloroethane	<0.010
1,1-Dichloroethylene	<0.010
1,2-Dichloropropane	<0.010
Cis 1,3-Dichloropropene	<0.010
Trans 1,3-Dichloropropene	<0.010
Ethylbenzene	<0.010

AR200908

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Spectrum Control

Date Sample(s) Received: 8/5/81/32

Re: 001 Composite

ANALYTICAL REPORT FORM

Units in mg/L

Volatile Compounds	Sample
Methyl Bromide	<0.010
Methyl Chloride	<0.010
Methylene Chloride	<0.010
1,1,2,2-Tetrachloroethane	<0.010
Tetrachloroethylene	<0.010
Toluene	<0.010
1,2-Trans-Dichloroethylene	<0.010
1,1,1-Trichloroethane	<0.010
1,1,2-Trichloroethane	<0.010
Trichloroethylene	<0.010
Trichlorofluoromethane	<0.010
Vinyl Chloride	<0.010

AR200909

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Spectrum Control

Date Sample(s) Received: 8/5/81/32

Re: 001 Composite

ANALYTICAL REPORT FORM Units in mg/L

Acid Compounds	Sample
2-Chlorophenol	<0.025
2,4-Dichlorophenol	<0.025
2-4-Dimethylphenol	<0.025
4,6-Dinitro-O-Cresol	<0.250
2,4-Dinitrophenol	<0.250
2-Nitrophenol	<0.025
4-Nitrophenol	0.026
P-Chloro-M-Cresol	<0.025
Pentachlorophenol	<0.025
Phenol	<0.025
2,4,6-Trichlorophenol	<0.025

[illegible]
ADMINISTRATIVE ASSISTANT

AR200910

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Mr. Jack Baker
Spectrum Control Inc.
600 Erie Street
Saegertown, PA 16433

Date Sample(s) Received: 8/5/81/32

Re: 001 Composite

ANALYTICAL REPORT FORM

Units in mg/L

Base/Neutral Compounds	Sample
Acenaphthene	<0.010
Acenaphtylene	<0.010
Anthracene	<0.010
Benzidine	<0.010
Benzo (a) Anthracene	<0.010
Benzo (a) Pyrene	<0.010
3,4-Benzofluoranthene	<0.010
Benzo (ghi) Perylene	<0.025
Benzo (k) Fluoranthene	<0.010
Bis (2-Chloroethoxy) Methane	<0.010
Bis (2-Chloroethyl) Ether	<0.010
Bis (2-Chloroisopropyl) Ether	<0.010
Bis (2-Ethylhexyl) Phthalate	<0.010
4-Bromophenyl Phenyl Ether	<0.010
Butyl Benzyl Phthalate	<0.010
2-Chloronaphthalene	<0.010
4-Chlorophenyl Phenyl Ether	<0.010
Chrysene	<0.010
Dibenzo (a,h) Anthracene	<0.025

AR200911

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Spectrum Control

Date Sample(s) Received: 8/5/81/32

Re: 001 Composite

ANALYTICAL REPORT FORM Units in mg/L

Base/Neutral Compounds	Sample
1,2-Dichlorobenzene	<0.010
1,3-Dichlorobenzene	<0.010
1,4-Dichlorobenzene	<0.010
3,3'-Dichlorobenzidine	<0.010
Diethyl Phthalate	<0.010
Dimethyl Phthalate	<0.010
Di-N-Butyl Phthalate	<0.010
2,4-Dinitrotoluene	<0.010
2,6-Dinitrotoluene	<0.010
Di-N-Octyl Phthalate	<0.010
1,2-Diphenylhydrazine (as Azobenzene)	<0.010
Fluoranthene	<0.010
Fluorene	<0.010
Hexachlorobenzene	<0.010
Hexachlorobutadiene	<0.010
Hexachlorocyclopentadiene	<0.010
Hexachloroethane	<0.010
Indeno (1,2,3-cd) Pyrene	<0.010

AR200912

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Spectrum Control

Date Sample(s) Received: 8/5/81/32

Re: .001 Composite

ANALYTICAL REPORT FORM

Units in mg/L

Base/Neutral Compounds	Sample
Isophorone	<0.010
Naphthalene	<0.010
Nitrobenzene	<0.010
N-Nitrosodimethylamine	<0.025
N-Nitrosodi-N-Propylamine	<0.010
N-Nitrosodiphenylamine	<0.010
Phenanthrene	<0.010
Pyrene	<0.010
1,2,4-Trichlorobenzene	<0.010

AR200913

\SE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of ılformation on separate sheets *(use the same format)* instead of completing these pages. INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: PAD065614430

Form Approved OMB No. 158-R0173

INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 002

RT A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

OLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
iochemical gen Demand D)	<1.0	<7.3						mg/1	gm			
hemical gen Demand D)	<7.0	<51.0						mg/1	gm			
otal Organic on *(TOC)*	22.0	160.7						mg/1	gm			
otal Suspended ds *(TSS)*	<0.1	<0.7						mg/1	gm			
mmonia *(as N)*	0.4	2.9						mg/1	gm			
ow	VALUE 1930		VALUE		VALUE				Gal	VALUE		
mperature ter)	VALUE Not available		VALUE		VALUE			°C		VALUE		
mperature mer)	VALUE 40		VALUE		VALUE			°C		VALUE		
	MINIMUM 7.7	MAXIMUM 7.8	MINIMUM	MAXIMUM				STANDARD UNITS				

RT B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

OLLUTANT AND AS NO. *available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
omide 59 67-9)		X												
lorine, Residual		X												
lor		X												
cal form		X	0							#/100mL				
uoride 84-48-8)		X												
trate– te *(as N)*		X												

ANT AND CAS NO. (If available)	a. REQUIRED PRESENT	b. REQUIRED ABSENT	3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
			a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (If available)		c. LONG TERM AVRG. VALUE (If available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
Nitrogen, tal Organic N)		X												
Oil and rease	X		2.3	16.8						mg/1	gm			
Phosphorus P), Total 723-14-0)		X												
Radioactivity														
Alpha, tal		X												
Beta, tal		X												
Radium, tal		X												
Radium 6, Total		X												
Sulfate SO_4) (808-79-8)		X												
ulfide S)		X												
Sulfite SO_3) (265-45-3)		X												
Surfactants		X												
Aluminum, tal 29-90-5)		X												
Barium, tal 40-39-3)		X												
Boron, tal 40-42-8)		X												
Cobalt, tal 40-48-4)		X												
on, Total 39-89-6)		X												
Magnesium, tal 39-95-4)		X												
Molybdenum, tal 39-98-7)		X												
Manganese, tal 39-96-5)		X												
Tin, Total 40-31-5)		X												
Titanium, tal 40-32-6)		X												

EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
PAD065614430	002

CONTINUED FROM PAGE 3 OF FORM 2-C

Form Approved OMB No. 158-R0173

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, non–process wastewater outfalls, and non–required GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table *(all seven pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X												
2M. [illegible]nic, Total (7440-38-2)			X												
3M. Beryllium, Total, 7440-41-7)			X												
4M. Cadmium, Total (7440-43-9)			X												
5M. Chromium, Total (7440-47-3)			X												
6M. Copper, Total (7550 50-8)			X												
7M. Lead, Total (7439-97-6)			X												
8M. Mercury, Total (7439-97-6)			X												
9M. Nickel, Total (7440-02-0)			X												
10M [illegible]nium, Total [illegible]82-49-2)			X												
11M. Silver, Total (7440-22-4)			X												
12M. Thallium, Total (7440-28-0)			X												
13M. Zinc, Total (7440-66-6)			X												
14M. Cyanide, Total (57-12-5)			X												
15M. Phenols, Total			X												
DIOXIN															
[illegible],3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

CONTINUE ON [illegible]VERSE

CONTINUED FRO[illegible] FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			X												
2V. Acrylonitrile (107-13-1)			X												
3V. Benzene (71-43-2)			X												
4V. Bis (Chloromethyl) Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X												
6V [illegible]bon Tetrachloride (56-23-5)			X												
7V. Chlorobenzene (108 90-7)			X												
8V. Chlorodibromomethane (124-48-1)			X												
9V. Chloroethane (75 00-3)			X												
10V. 2-Chloroethylvinyl Ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X												
12V. Dichlorobromomethane (75-27-4)			X												
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. [illegible]Dichloroethane (75-34-3)			X												
15V. 1,2-Dichloroethane (107-06-2)			X												
16V. 1,1-Dichloroethylene (75-35-4)			X												
17V. 1,2-Dichloropropane (78-87-5)			X												
18V. 1,2-Dichloropropylene (542 75 6)			X												
19V. Ethylbenzene (100-41-4)			X												
20V. Methyl Bromide (74-83 9)			X												
21V. Methyl Chloride (74-87-3)			X			I			S						

Form 3510-2C (6-80)

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER (copy from Item 1 of Form 1): PAD065614430

OUTFALL NUMBER: 002

Form Approved OMB No. 158-R0173

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-6)			X												
24V. Tetrachloroethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-Dichloroethylene (-60-5)			X												
27V. 1,1,1-Trichloroethane (71-55-6)			X												
28V. 1,1,2-Trichloroethane (79-00-5)			X												
29V. Trichloroethylene (79-01-6)			X												
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)			X												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichlorophenol (120-83-2)			X												
3A. 2,4-Dimethylphenol (105-67-9)			X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X												
5A. 2,4-Dinitrophenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro-M-Cresol (59-50-7)			X												
9A. Pentachlorophenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichlorophenol			X												

(35)

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83 32-9)			X												
2B. Acenaphtylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo *(a)* Anthracene (56-55-3)			X												
6B. Benzo *(a)* P ne (50-32-8)			X												
7. ,4-Benzo-fluoranthene (205-99-2)			X												
8B. Benzo *(ghi)* Perylene (191-24-2)			X												
9B. Benzo *(k)* Fluoranthene (207-08-9)			X												
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)			X												
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)			X												
12B. Bis *(2-Chloro-isopropyl)* Ether (39638-32-9)			X												
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)			X												
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)			X												
1 utyl Benzyl Phthalate (85-68-7)			X												
16B. 2-Chloro-naphthalene (91-58-7)			X												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo *(a,h)* Anthracene (53-70-3)			X												
20B. 1,2-Dichloro-benzene (95-50-1)			X												
21B. 1,3-Dichloro-benzene (541-73-1)			X												

AR209639

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1): PAD065614430 | OUTFALL NUMBER: 002

Form Approved OMB No. 158-R0173

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			X												
23B. 3,3'-Dichlorobenzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131-11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. Dinitrotoluene (121-14-2)			X												
28B. 2,6-Dinitrotoluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachlorobenzene (118-71-1)			X												
34B. Hexachlorobutadiene (87-68-3)			X												
35B. Hexachlorocyclopentadiene (77-47-4)			X												
36B. Hexachloroethane (67-72-1)			X												
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitrosodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

CONTINUED FRO[redacted] FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TEST INCLUDED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4 - Trichlorobenzene (120-82-1)			X												
GC/MS FRACTION – PESTICIDES															
1 'drin (. J0-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P 4'-DDD (7 -8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

AR2009

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

(37)

J. Richard Wohler, Ph.D.
Laboratory Director

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

Karen C. Eglinton
Laboratory Manager

To: Mr. Jack Baker
Spectrum Control
600 Erie Street
Saegertown, PA 16433

Date Sample(s) Received: 8/5/81/29

Re: 002 Composite

ANALYTICAL REPORT FORM

Parameter	Composite Sample (8/4)
B.O.D.$_5$ mg/L	<1
C.O.D. mg/L	<7
T.O.C. mg/L	22.0
Total Suspended Solids mg/L	<0.1
Ammonia Nitrogen mg/L	0.4

Parameter	8/4 8:00 PM	8/5 2:00 AM	8/5 8:30 PM	8/5 2:30 PM
Oil & Grease mg/L	<0.1	<0.1	3.4	1.5

Robert W. Taglieri
ADMINISTRATIVE ASSISTANT

8/25/81

/dt

AR200923

A.I.H.A. Accreditation No. 98
HEW / CLIA Lic. No. 37-1129

PA. Department of Health
Clinical Laboratory Permit No. 561
EPA Facility No. 38-073

FREE-COL LABORATORIES
P.O. Box 557, Cotton Road
Meadville, PA 16335
(814) 724-6242

J. Richard Wohler, Ph.D.
Laboratory Director

Karen C. Eglinton
Laboratory Manager

To: Mr. Jack Baker
Spectrum Control Inc.
600 Erie Street
Saegertown, PA 16433

Date Sample(s) Received: 8/5/81

RE: 002

ANALYTICAL REPORT FORM

Sample	Fecal Coliform #/100 mL
8:00 AM 8/4	0
2:00 PM 8/4	0
8:00 PM 8/4	0
2:00 AM 8/5	0

Robert V. Taglieri
ADMINISTRATIVE ASSISTANT

8/31/81

/dt

AR200924

A.I.H.A. Accreditation No. 98
HEW / CLIA Lic. No. 37-1129

PA. Department of Health
Clinical Laboratory Permit No. 561
EPA Facility No. 38-073

ER-BWQ-15.1 9/78

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

WATER QUALITY MANAGEMENT PERMIT - PART I

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT NO. PA 0100307

In compliance with the provisions of the Clean Water Act, 33 U.S.C. 1251 et. seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et. seq.,

Spectrum Control, Inc.

is authorized to discharge from a facility located at

Saegertown Borough - Crawford County

to receiving waters named

Storm sewer tributary to French Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B, and C hereof.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire at midnight, 6/30/81.

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the standard or special conditions, the standard or special conditions shall apply.

2. Failure to comply with the rules and regulations of the Department or with the terms or conditions of this permit shall void the authority to discharge given to the permittee by this permit.

PERMIT ISSUED BY _____

DATE _____ TITLE _____

_____

_____

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, OUTFALL 001, LAT 41 42 45, LONG 80 08 46
WHICH RECEIVES WASTE FROM:

During the period beginning Effective Date and lasting through 6/30/81 the permittee is authorized to discharge.

Such discharges shall be limited, and monitored by the permittee, as specified below:

Effluent Characteristic	Discharge Limitations * kg/day (lbs/day) Daily Avg.	Daily Max.	Other Units (Specify) Daily Avg.	Daily Max.	Instantaneous Max.	Monitoring Requirements Measurement Frequency	Sample Type
Flow-m^3/Day (MGD)			.01 MGD			Continuous	Recorded
Copper	.07 ppd	.14 ppd			1.0 mg/1	1/week	8 hr. comp
Nickel	.07 ppd	.14 ppd			1.0 mg/1	"	"
Silver	.003 ppd	.007 ppd			.05 mg/1	"	"
Tin	.14 ppd	.28 ppd			2 mg/1	"	"
Cyanide Total	.07 ppd	.14 ppd			1 mg/1	"	"
Cyanide Free	.007 ppd	.014 ppd			.25 mg/1	"	"
Iron Total	.57 ppd	1.0 ppd			12 mg/1	"	"
Suspended Solids	4.3 ppd	8.6 ppd			60 mg/1	"	"
Oil & Grease	2.1 ppd	4.2 ppd			30 mg/1	"	Avg. of 3 grabs/8 hrs.
Temp.	Limited to an amount which would cause an instream rise of 5° above ambient or a maximum of 87° whichever is less or raise the temp more than 2° in one hour.						

The pH shall not be less than 6.0 standard units, not greater than 9.0 standard units and shall be monitored Daily, Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall of treatment facility prior to discharge to or mixing with storm sewer or cooling water.

*Unless otherwise indicated, these are gross discharge limitations.

APPROVED

1. [redacted]LUENT LIMITATIONS AND MONITORING REQUIR[redacted]NTS, OUTFALL 002, LAT 41 42 [redacted], LONG 80 08 4[redacted]
WHICH RECEIVES WASTE FROM:

During the period beginning Effective Date and lasting through 6/30/81 the permittee is authorized to discharge.

Such discharges shall be limited, and monitored by the permittee, as specified below:

Effluent Characteristic	Discharge Limitations *					Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Instantaneous Max.	Measurement Frequency	Sample Type
Flow-m^3/Day (MGD)			.0072			Weekly	Estimate
Temp.	Limited to an amount which would cause an instream rise of 5° above ambient or a maximum of 87° whichever is less or raise the temp more than 2° in one hour.						

The pH shall not be less than 6.0 standard units, not greater than 9.0 standard units and shall be monitored 1/week - grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 002 - Cooling water discharge prior to mixing with or discharge to storm sewer or treatment plant effluent.

*Unless otherwise indicated, these are gross discharge limitations.

NPDES No. [redacted]

PART II

PART A

2. MONITORING AND REPORTING

a. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

b. Reporting

Monitoring results obtained during the previous months shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. T-40), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on . Duplicate signed copies of these and all other reports required herein, shall be submitted to the Department and the EPA Regional Administrator at the following addresses:

Dept. of Environmental Resources
Bureau of Water Quality Mgmt.
1012 Water Street
Meadville, Pennsylvania 16335

Permits Administration Section
Enforcement Division
U.S. Environmental Protection Agency
Region III
6th and Walnut Streets
Philadelphia, PA 19106

c. Definitions

(1) The "daily average" discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

(2) The "daily maximum" discharge means the total discharge by weight during any calendar day.

(3) The "daily average" concentration means the arithmetic average of all the daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average of all the samples collected during that calendar day.

(4) The "daily maximum" concentration means the daily determination of concentration for any calendar day.

(5) The "instantaneous maximum" concentration means the concentration not to be exceeded at any time in any grab sample.

(6) Composite Sample - A combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite. The maximum time period between individual samples shall be two hours.

(7) Grab Sample - An individual sample collected in less than 15 minutes.

(8) "i-s", = immersion stabilization - a calibrated device which is immersed in the effluent stream until the reading is stabilized.

(9) The "daily average" temperature means the arithmetic mean of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of a shorter duration.

(10) The "daily maximum" temperature means the highest arithmetic mean of the temperatures observed for any two (2) consecutive hours during a 24-hour day, or during the operating day if flows are of shorter duration.

(11) "Measured Flow" - Any method of liquid volume measurement the accuracy of which has been previously demonstrated in engineering practice, or for which a realtionship to absolute volume has been obtained.

(12) "At outfall XXX" - A sampling location in outfall line XXX downstream from the last addition point or as otherwise specified.

(13) Estimate - To be based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

(14) Non-contact cooling water means the water that is contained in a leak-free system, i.e. no contact with any gas, liquid, or solid other than the container for transport; the water shall have no net poundage addition of any pollutant over intake water levels.

(15) The term "cyanide A" shall mean cyanide amenable to chlorination.

d. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(h) of the Act, under which such procedures may be required.

e. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

(1) The exact place, date, and time of sampling.

(2) The dates the analyses were performed.

(3) The person(s) who performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of all required analyses.

f. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. T-40). Such increased frequency shall also be indicated.

g. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years, or longer if requested by the Department or the EPA Regional Administrator.

3. SCHEDULE OF COMPLIANCE

a. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

N/A

b. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART B

1. MANAGEMENT REQUIREMENTS

a. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Department of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

b. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide the Department and the EPA Regional Administrator with the following information, in writing, within five (5) days of becoming aware of such condition:

(1) A description of the discharge and cause of noncompliance; and

(2) The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

c. Facilities Operation

The permittee shall, at all times, maintain in good working order and operate as efficiently as possible, all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

d. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

e. Bypassing

Any diversion from or bypass of facilities used to maintain compliance with the terms and conditions of this permit is prohibited. Where malfunctions, breakdowns, or other unforeseen events cause a disruption of these facilities, the permittee shall first make an effort to halt, reduce, or otherwise control production so that a discharge in excess of the effluent limitations does not occur.

In the event that diversion or bypassing occurs to prevent loss of life or severe property damage, or where excessive storm drainage or runoff would damage these facilities, the permittee shall promptly notify the Department and the EPA Regional Administrator, orally and in writing, of each such diversion or bypass, together with a full and complete explanation of the event as noted in Par. 1.b(1) and 1.b(2) above.

f. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

g. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

(1) In accordance with the Schedule of Compliance contained in Part A.3, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if such alternative power source is not in existence, and no date for its implementation appears in Part A.3,

(2) Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

2. RESPONSIBILITIES

a. Right of Entry

The permittee shall allow the head of the Department, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

(1) To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

(2) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

b. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Department and to the EPA Regional Administrator.

HENDERSON
DAVE ~~HENDERSON~~

RICHARD SMITH

JOYCE BERRY

BOB HERMAN

PAST CHIEFS

7 COPIES

c. Availability of Reports

Except for data determined to be confidential under 25 Pa. Code, Section 92.63, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the EPA Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalites as provided for in Section 309 of the Act or applicable State law.

d. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

(1) Violation of any terms or conditions of this permit;

(2) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

(3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

(4) A change in applicable water quality standards or treatment requirements.

e. Toxic Pollutants

Notwithstanding Part B.2.d above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge, and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, then this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

f. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

g. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

h. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

i. Other Laws

Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating industrial wastes and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by any of the laws of the Commonwealth of Pennsylvania or of the United States.

j. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART C

OTHER REQUIREMENTS

JACK

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
1012 Water Street
Meadville, Pennsylvania 16335
Telephone: A. C. 814-724-8550

JUL 25 1984

Subject: Spectrum Control, Inc.
Saegertown, Crawford County
NPDES Permit #PA0100307

Mr. Jack Baker
Vice President, Engineering
Spectrum Control, Inc.
600 Erie Street
Saegertown, Pennsylvania 16433

Dear Mr. Baker:

Enclosed is your Water Quality Management Part I Permit #PA0100307 authorizing a discharge from your plant in Saegertown, Crawford County. Also enclosed is a copy of a Discharge Monitoring Report (DMR) which should be copied and used to report your effluent parameters according to the schedule contained in your permit.

A Water Quality Management Part II Permit application will not be required at this time.

If you have any questions regarding this matter, do not hesitate to contact me.

Sincerely,

Richard H. Zinn
Regional Environmental
Protection Director

RHZ/skg

Enclosures -

AR200938

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF WATER QUALITY MANAGEMENT

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

INDUSTRIAL PERMIT NO. PA 0100307

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq.,

Spectrum Control, Inc.

is authorized to discharge from a facility located at

Saegertown, Crawford County

to receiving waters named French Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B, and C hereof.

This permit and the authorization to discharge shall expire at midnight, JUL 24 1989.

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with the terms or conditions of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. Application for renewal of this permit, or notification of intent to cease discharging by the expiration date, must be submitted to the Department at least 180 days prior to the above expiration date (unless permission has been granted by the Department for submission at a later date), using the appropriate NPDES permit application form. In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit will be automatically continued and will remain fully effective and enforceable pending the grant or denial of the application for permit renewal.

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

AR200939

PERMIT ISSUED

DATE JUL 25 1984

BY _____
Richard H. Zinn
Regional Environmental
Protection Director

TITLE

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, OUTFALL 001,
WHICH RECEIVES WASTE FROM:

LAT 41°42'41"
LONG 80°8'43"

a. The permittee is authorized during the period from issuance date through expiration date.

b. Based on the production data and anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply:

	Discharge Limitations*					Monitoring Requirements		
	Mass Units (lbs/day)		Concentrations (mg/l)					24 Hou Report
Discharge Parameter	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Instantaneous Maximum	Measurement Frequency	Sample Type	Under A.3.C
Flow (MGD)			0.01			Continuous	Recorder	
Cadmium			0.015		0.04	1/year	8 hr comp	
Copper			2.07	3.38	5.2	"	"	
Lead			0.43	0.69	1.1	"	"	
Nickel			2.38	3.98	5.95	4/month	"	
Silver			0.06		0.15	"	"	
Zinc			1.48	2.61	3.7	1/year	"	
Cyanide (T)**			0.65	1.20	1.6	4/month	"	
Oil and Grease			15		30	1/year	3 grabs/8 hr comp	
Total Suspended Solids			30		60	4/month	8 hr comp	
TTO***				2.13		1/year	***	

** - Refer to Part 3 - Other Requirements - Special Condition No. 1
*** - Refer to Part 3 - Other Requirements - Special Condition No. 2

pH	Not less than 6.0 to 9.0 standard units at all times.	Daily	Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations(s):

Outfall 001 - Treatment plant outfall prior to discharge to or mixing with storm sewer or cooling water.

*Unless otherwise indicated, these are gross discharge limitations.

PA0094609

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, OUTFALL 002, LAT 41°42' LONG 80°08'43"
WHICH RECEIVES WASTE FROM:

a. The permittee is authorized during the period from issuance date through expiration date.

b. Based on the production data and anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply:

	Discharge Limitations*					Monitoring Requirements		
	Mass Units (lbs/day)		Concentrations (mg/l)					24 Hour Report
Discharge Parameter	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Instantaneous Maximum	Measurement Frequency	Sample Type	Under A.3.C?
Flow (MGD)			0.0072			Weekly	Estimate	
Temperature					104°F	Weekly	I - S	

This discharge shall consist solely of non-contact cooling water.

pH Not less than 6.0 to 9.0 standard units at all times. Weekly Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations(s):

Outfall 002 - Cooling water discharge prior to discharge to or mixing with storm sewer or treatment plant effluent.

*Unless otherwise indicated, these are gross discharge limitations.

APR 2004

2. Definitions

a. The term "Bypass" means the intentional diversion of wastes from any portion of a treatment facility.

b. The term "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

c. The "average monthly" mass discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the average monthly mass discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

d. The "maximum daily" mass discharge means the total discharge by weight during any calendar day.

e. The "average monthly' concentration means the arithmetic average of all the daily determinations of concentration made during a calendar month.

f. The "daily determination of concentration" means either the concentration of a composite sample taken during a calendar day or the arithmetic average of all grab samples taken during a calendar day.

g. The "maximum daily" concentration means the daily determination of concentration for any calendar day.

h. The "instantaneous maximum" concentration means the concentration not to be exceeded at any time in any grab sample.

i. The term "Composite Sample" means a combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite. The maximum time period between individual samples shall not exceed two hours, except that for wastes of a uniform nature the samples may be collected on a frequency of at least twice per working shift and shall be equally-spaced over a 24-hour period (or over the operating day if flows are of a shorter duration).

j. The term "Grab Sample" means an individual sample collected in less than 15 minutes.

k. The term "i-s" means immersion stabilization - in which a calibrated device is immersed in the effluent stream until the reading is stabilized.

l. The "average monthly" temperature means the arithmetic mean of temperature measurement made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month or during the operating month if flows are of a shorter duration.

m. The "maximum daily" temperature means the highest arithmetic mean of the hourly temperatures observed for any two (2) consecutive hours during a 24-hour day, or during the operating day if flows are of a shorter duration.

n. The term "Measured Flow" means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

o. The term "At outfall XXX" means a sampling location in outfall line XXX downstream from the last point at which wastes are added to outfall line XXX, or otherwise specified.

p. The term "Estimate" means to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

q. The term "non-contact cooling water" shall mean water which is used in a cooling system designed so as to maintain constant separation of the cooling medium from all contact with process chemicals but which may on occasion, as a result of corrosion, cooling system leakage or similar cooling system failures contain small amounts of process chemicals: provided, that all reasonable measures have been taken to prevent, reduce, eliminate and control to the maximum extent feasible such contamination: and provided further, that all reasonable measures have been taken that will mitigate the effects of such contamination once it has occurred.

3. SELF-MONITORING, REPORTING, AND RECORDS KEEPING

a. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

b. Reporting of Monitoring Results

(1) Monitoring results obtained during each month shall be summarized for that month and reported on a Discharge Monitoring Report (DMR) Form postmarked no later than the 28th day of the following month. Duplicate signed copies of these and all other reports required herein, shall be submitted to the Department and the EPA Regional Office at the following addresses:

Dept. of Environmental Resources
Bureau of Water Quality Management
1012 Water Street
Meadville, Pennsylvania 16335

Pennsylvania Section 3WM52
Water Permits Branch
Water Management Division

~~Pennsylvania Section~~ (3EN22)
~~Permits Enforcement Branch~~
~~Enforcement Division~~
U.S. Environmental Protection Agency
Region III
6th and Walnut Streets
Philadelphia, PA 19106

(2) If the permittee monitors any pollutant, using analytical methods described in A.3.e. below, more frequently that the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR.

c. Non-Compliance Reporting

(1) 24-Hour Reporting - The permittee shall orally report to the Department within 24-hours of becoming aware of the following:

(a) Actual or anticipated non-compliance with any term or condition of this permit which may endanger health or the environment.

(b) Actual or anticipated non-compliance with any "maximum daily" discharge limitation which is identified in Part A.1 of this permit as being either:

(i) A toxic pollutant effluent standard established by EPA pursuant to Section 307(a) of the Clean Water Act,

(ii) For a toxic or hazardous polutant which, if not adequately treated, could constitute a threat to human health, welfare, or the environment, or

(iii) Any pollutant identified as the method to control a toxic pollutant or hazardous substance (i.e. indicator pollutant).

(c) Any unanticipated bypass which exceeds any effluent limitations in the permit.

(d) Where the permittee orally reports this information within the above mentioned 24-hour time period, a written submission outlining the above information must be submitted to the Department within 5-days of becoming aware of such a condition, unless this requirement is waived by the Department upon receipt of the oral report.

(2) Other Non-Compliance Reporting

(a) The permittee shall give advance notice to the Department of any planned changes to the permitted activity or facility which may result in non-compliance with permit requirements.

(b) Where the permittee knows in advance of the need for a by-pass which will exceed effluent limitations, it shall submit prior notice to the Department at least 10 days, if possible, before the date of the bypass.

(c) The permittee shall report all instances of non-compliance which are not reported above at the time of DMR submission.

(3) The reports and notifications required above shall contain the following information:

(a) A description of the discharge and cause of non-compliance;

(b) The period of non-compliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and

(c) Steps being taken to reduce, eliminate, and prevent recurrence of the non-complying discharge.

d. Specific Toxic Substance Notification Levels - The permittee shall notify the Department as soon as it knows or has reason to believe the following:

(1) That any activity has occurred, or will occur, which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels".

(a) One hundred micrograms per liter

(b) Two hundred micrograms per liter for acrolein and acrylonitrile

(c) Five hundred micrograms per liter for 2, 4-dinitrophenol and 2-methyl -4, 6-dinitrophenol

(d) One milligram per liter for antimony

(e) Five (5) times the maximum concentration value reported for that pollutant in the permit application

(f) Any other notification level established by the Department

(2) That it has begun, or expects to begin, to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

e. Test Procedures

Unless otherwise specified in this permit, the test procedures for the analysis of pollutants shall be those contained in 40 CFR Part 136, or alternate test procedures approved pursuant to that part.

f. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

(1) The exact place, date, and time of sampling or measurements;

(2) The person(s) who performed the sampling or measurements;

(3) The dates the analyses were performed;

(4) The person(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

g. Records Retention

All records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for three (3) years. The three year period shall be extended as requested by the Department or the EPA Regional Administrator.

4. SCHEDULE OF COMPLIANCE N/A

a. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

b. Periodic Reports Required

No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit to the Department a written notice of compliance or non-compliance with the specific schedule requirement. In the case of non-compliance, the notice shall include the cause of non-compliance, any remedial actions takens, the estimated date when compliance with the elapsed date shall occur, and the probability of meeting the next scheduled requirement.

1. MANAGEMENT REQUIREMENTS

a. Permit Modification, Termination, or Revocation and Reissuance

(1) This permit may be modified, terminated, or revoked and reissued during its term for any of the causes specified in 25 Pa. Code, Chapter 92.

(2) The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated non-compliance, does not stay any permit condition.

(3) Toxic Pollutants

Notwithstanding the above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge, and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, then this permit shall be modified or revoked and reissued by the Department to conform with the toxic effluent standard or prohibition and the permittee so notified.

In the absence of a Departmental action to modify or to revoke and reissue this permit, any toxic effluent standard or prohibition established under Section 307(a) of the Act is considered to be effective and enforceable against the permittee.

b. Duty to Provide Information

(1) The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

(2) The permittee shall furnish to the Department, upon request, copies of records required to be kept by this permit.

(3) Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information to the Department.

(4) The permittee shall give advance notice to the Department of any planned physical alterations or additions to the permitted facility.

c. Facilities Operation

The permittee shall at all times maintain in good working order and properly operate all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee for water pollution control and abatement to achieve compliance with the terms and conditions of the permit. Proper operation and maintenance includes but is not limited to effective performance based on designed facility removals, adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and processing controls including appropriate quality assurance procedures. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with this permit.

d. Adverse Impact

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from non-compliance with this permit.

e. Bypassing

(1) Bypassing not Exceeding Permit Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if the bypass is for essential maintenance to assure efficient operation. This type of bypassing is not subject to the reporting and notification requirements of Part A.3.c above.

(2) Other Bypassing - In all other situations bypassing is prohibited unless the following conditions are met:

(a) A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage";

(b) There are no feasible alternatives to a bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down-time. (This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(c) The permittee submitted the necessary reports required under Part A.3.c above.

(3) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above.

f. Reduction, Loss, or Failure of the Treatment Facilities

Upon reduction, loss, or failure of the treatment facilities, in order to maintain compliance with its permit, the permittee shall control production and all discharges until either the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things,the primary source of power of the treatment facility is reduced, lost, or fails.

g. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from adversely affecting the environment.

2. RESPONSIBILITIES

a. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law and 25 Pa. Code, Chapter 92, the permittee shall allow the head of the Department, the EPA Regional Administrator, and/or their authorized representatives, upon the presentation of credentials and other documents as may be required by law:

(1) To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

(2) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; to inspect any collection, treatment, pollution management, or discharge facilities required under the permit; and to sample any substances or parameters at any location.

b. Transfer of Ownership or Control

(1) No permit may be transferred unless approved by the Department.

(2) In the event of any pending change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the Department by letter of such pending change at least 30 days prior to the change in ownership or control.

(3) The letter shall be accompanied by the appropriate Department forms for transfer of the permit and a written agreement between the existing permittee and the new owner or controller stating that the existing permittee shall be liable for violations of the permit up to and until the date of permit transfer and that the new owner or controller shall be liable for permit violations from that date on.

(4) After receipt of the documentation above, the Department shall notify the existing permittee and the new owner or controller of its decision concerning approval of the transfer. In approving a transfer the Department may modify or revoke and reissue the permit.

(5) In the event the Department does not approve transfer of the permit, the new owner or controller must submit a new permit application.

c. Confidentiality of Reports

Except for data determined to be confidential under 25 Pa. Code, Chapter 92 all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the EPA Regional Administrator. Effluent data shall not be considered confidential.

d. Penalties and Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance pursuant to Section 309 of the Clean Water Act or Sections 602 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

e. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; nor does it authorize any injury to private property or any invasion of personal rights.

f. Other Laws

Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating industrial wastes and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by federal or state law or regulation, or by local ordinance. Nor does it pre-empt any duty to obtain state or local assent required by law for the discharge(s).

g. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of nay provision of this permit to any circumstances, is held invalid, the application of such provision to other circumtances, and the remainder of this permit, shall not be affected thereby.

1. Self-monitoring for cyanide must be conducted after the cyanide destruction treatment process and before dilution with other internal plant stream flows.

2. TTO

The term "TTO" shall mean total toxic organics, which is the summation of all quantifiable values greater than 0.01 milligrams per liter for the following toxic organics:

GC/MS Fraction - Volatile Compounds

1V. Acrolein
2V. Acrylonitrite
3V. Benzene
4V. Bis (Chloromethyl) Ether
5V. Bromoform
6V. Carbon Tetrachloride
7V. Chlorobenzene
8V. Chlorodibromomethane
9V. Chloroethane
10V. 2-Chloroethylvinyl Ether
11V. Chloroform
12V. Dichlorobromomethane
13V. Dichlorodifluoromethane
14V. 1,1-Dichloroethane
15V. 1,2-Dichloroethane
16V. 1,1-Dichloroethylene
17V. 1,2-Dichloropropane
18V. 1,3-Dichloropropylene
19V. Ethylbenzene
20V. Methyl Bromide
21V. Methyl Chloride
22V. Methylene Chloride
23V. 1,1,2,2-Tetrachloroethane
24V. Tetrachloroethylene
25V. Toluene
26V. 1,2-Trans-Dichloroethylene
27V. 1,1,1-Trichloroethane
28V. 1,1,2-Trichloroethane
29V. Trichloroethylene
30V. Trichlorofluoromethane
31V. Vinyl Chloride

GC/MS Fraction - Base/Neutral Compounds

1B. Acenaphthene
2B. Acenaphtylene
3B. Anthracene
4B. Benzidine
5B. Benzo(a) Antracene
6B. Benzo(a) Pyrene
7B. 3,4-Benzofluoroanthene
8B. Benzo(ghi) Perylene
9B. Benzo(k) Fluoroanthene
10B. Bis(2-Chloroethoxy) Methane
11B. Bis(2-Chloroethyl) Ether
12B. Bis(2-Chloroisopropyl) Ether
13B. Bis(2-Ethylhexyl) Phthalate
14B. 4-Bromophenyl Phenyl Ether
15B. Butyl Benzyl Phthalate
16B. 2-Chloronaphthalene
17B. 4-Chlorophenyl Phenyl Ether
18B. Chrysene
19B. Dibenzo (a,h) Anthracene
20B. 1,2-Dichlorobenzene
21B. 1,3-Dichlorobenzene
22B. 1,4-Dichlorobenzene
23B. 3,3-Dichlorobenzidine
24B. Diethyl Phthalate
25B. Dimethyl Phthalate
26B. Di-N-Butyl Phthalate
27B. 2,4-Dinitrotoluene
28B. 2,6-Dinitrotoluene
29B. Di-N-Octyl Phthalate
30B. 1,2-Diphenylhydrazine (as Azobenzene)
31B. Fluoroanthene
32B. Fluorene
33B. Hexachlorobenzene
34B. Hexachlorobutadiene
35B. Hexachlorocyclopentadiene
36B. Hexachloroethane
37B. Indeno (1,2,3-cd) Pyrene
38B. Isophorone
39B. Naphthalene
40B. Nitrobenzene
41B. N-Nitrosodimethylamine
42B. N-Nitrosodi-N-Propylamine
43B. N-Nitrosodiphenylamine
44B. Phenanthrene
45B. Pyrene
46B. 1,2,4-Trichlorobenzene

GC/MS Fraction - Acid Compounds

1A. 2-Chlorophenol
2A. 2,4-Dichlorophenol
3A. 2,4-Dimethylphenol
4A. 4,6-Dinitro-O Cresol
5A. 2,4-Dinitrophenol
6A. 2-Nitrophenol
7A. 4-Nitrophenol
8A. P-Chloro-M-Cresol
9A. Pentachlorophenol
10A. Phenol
11A. 2,4,6,-Trichlorophenol

GC/MS Fraction - Pesticide Compounds

1P. Aldrin
2P. alpha-BHC
3P. beta-BHC
4P. gamma-BHC
5P. delta-BHC
6P. Chlordane
7P. 4,4-DDT
8P. 4,4-DDE
9P. 4,4-DDD
10P. Dieldrin
11P. Alpha-Endosulfan
12P. Beta Endosulfan
13P. Endosulfan Sulfate
14P. Endrin
15P. Endrin Aldehyde
16P. Heptachlor
17P. Heptachlor Epoxide
18P. PCB-1242
19P. PCB-1254
20P. PCB-1221
21P. PCB-1232
22P. PCB-1248
23P. PCB-1260
24P. PCB-1016
25P. Toxaphene

Dioxin

2, 3, 7, 8 - Tetrachloroditenzo - P. Dioxin

The sample type and analytical procedures shall be as follows:

Priority Pollution Fraction	Sample Size & Type	Analytical Method
Volatile	40 ml glass VOA vial/Grab	624
Base/Neutral	1/2 gallon/24 hr. composite	625
Acid	1/2 gallon/24 hr. composite	624/625
Pesticides	1/2 gallon/24 hr. composite	625
Dioxin	1/2 gallon/24 hr. composite	613